



(12)发明专利申请

(10)申请公布号 CN 108135151 A

(43)申请公布日 2018.06.08

(21)申请号 201680050869.4

(22)申请日 2016.09.01

(30)优先权数据

62/213,389 2015.09.02 US

(85)PCT国际申请进入国家阶段日

2018.03.02

(86)PCT国际申请的申请数据

PCT/US2016/049823 2016.09.01

(87)PCT国际申请的公布数据

W02017/040738 EN 2017.03.09

(71)申请人 瑞泽恩制药公司

地址 美国纽约

(72)发明人 C-J·邵 H-C·李 Z·李

K-M·V·赖 G·瑟斯顿

(74)专利代理机构 中国国际贸易促进委员会专
利商标事务所 11038

代理人 唐宏

(51)Int.Cl.

A01K 67/027(2006.01)

C12N 15/85(2006.01)

权利要求书3页 说明书18页

序列表152页 附图9页

(54)发明名称

前列腺癌的啮齿动物模型

(57)摘要

本公开提供一种前列腺癌的啮齿动物模型。本文公开的啮齿动物包含转基因,其在小鼠probasin基因的5'和3'调控区的控制下提供致癌蛋白(例如SV40肿瘤抗原)的前列腺特异性表达。所述啮齿动物发展出类似于人前列腺癌的发展的前列腺肿瘤的进展性形式。

1. 一种啮齿动物,其在基因组中包含转基因,所述转基因包含:
 - (a) 小鼠probasin基因的5'调控区,
 - (b) 核酸,其包含编码致癌蛋白的第一核苷酸序列,以及
 - (c) 所述小鼠probasin基因的3'调控区,其中所述5'调控区、所述核酸和所述3'调控区彼此可操作地连接。
2. 根据权利要求1所述的啮齿动物,其中所述5'调控区包含在所述小鼠probasin基因的转录起始位点上游的至少5kb的核酸序列。
3. 根据权利要求1所述的啮齿动物,其中所述5'调控区包含在所述小鼠probasin基因的转录起始位点上游的至少10kb的核酸序列。
4. 根据权利要求1所述的啮齿动物,其中所述5'调控区包含在所述小鼠probasin基因的转录起始位点上游的至少25kb的核酸序列。
5. 根据权利要求1所述的啮齿动物,其中所述5'调控区包含所述小鼠probasin基因的5'非翻译区(UTR)。
6. 根据权利要求1所述的啮齿动物,其中所述5'调控区包含如SEQ ID NO:6中列出的核苷酸序列。
7. 根据权利要求1-6中任一项所述的啮齿动物,其中所述3'调控区包含在所述小鼠probasin基因的转录终止位点下游的至少5kb的核酸序列。
8. 根据权利要求1-6中任一项所述的啮齿动物,其中所述3'调控区包含在所述小鼠probasin基因的转录终止位点下游的至少25kb的核酸序列。
9. 根据权利要求1-6中任一项所述的啮齿动物,其中所述3'调控区包含在所述小鼠probasin基因的转录终止位点下游的至少50kb的核酸序列。
10. 根据权利要求1-6中任一项所述的啮齿动物,其中所述3'调控区包含所述小鼠probasin基因的3'非翻译区(UTR)。
11. 根据权利要求1-6中任一项所述的啮齿动物,其中所述3'调控区包含如SEQ ID NO:7中列出的核苷酸序列。
12. 根据权利要求1-11中任一项所述的啮齿动物,其中所述致癌蛋白包括SV40肿瘤抗原或Myc。
13. 根据权利要求12所述的啮齿动物,其中所述SV40肿瘤抗原包括SV40大T抗原或其功能活性片段。
14. 根据权利要求12所述的啮齿动物,其中所述SV40肿瘤抗原包括SV40小t抗原或其功能活性片段。
15. 根据权利要求1-11中任一项所述的啮齿动物,其中所述第一核苷酸序列编码SV40大T抗原或其功能活性片段,并且还编码SV40小t抗原或其功能活性片段。
16. 根据权利要求1-11中任一项所述的啮齿动物,其中所述第一核苷酸序列包括如SEQ ID NO:1中列出的序列。
17. 根据权利要求1-16中任一项所述的啮齿动物,其中所述核酸还包含编码报告子的第二核苷酸序列。
18. 根据权利要求17所述的啮齿动物,其中所述报告子是荧光素酶。
19. 根据权利要求17或18所述的啮齿动物,其中所述第一核苷酸序列经由编码2A肽的

第三核苷酸序列在框内与所述第二核苷酸序列连接。

20. 根据权利要求19所述啮齿动物, 其中所述2A肽选自由以下项组成的组: 包含SEQ ID NO:10的氨基酸序列的F2A肽、包含SEQ ID NO:11的氨基酸序列的E2A肽、包含SEQ ID NO:12的氨基酸序列的P2A肽以及包含SEQ ID NO:13的氨基酸序列的T2A肽。

21. 根据权利要求19所述的啮齿动物, 其中所述2A肽是包含SEQ ID NO:13的氨基酸序列的T2A肽。

22. 根据权利要求1-21中任一项所述的啮齿动物, 其中所述核酸还包含编码选择性标记的第四核苷酸序列, 所述第四核苷酸序列可操作地连接至在所述啮齿动物细胞中具有活性的启动子。

23. 根据权利要求1-22中任一项所述的啮齿动物, 其中所述转基因被整合在所述基因组的异位基因座处。

24. 根据权利要求23所述的啮齿动物, 其中所述转基因的至少一至十个拷贝被串联整合在所述异位基因座处。

25. 根据权利要求1-24中任一项所述的啮齿动物, 其中所述啮齿动物是小鼠或大鼠。

26. 根据权利要求1-24所述的方法, 其中所述啮齿动物是小鼠。

27. 根据权利要求26所述的啮齿动物, 其中所述小鼠是选自由以下项组成的组的品系: C57BL/6品系、129品系或其杂交体。

28. 根据权利要求27所述的啮齿动物, 其中所述小鼠是F1H4品系。

29. 根据权利要求1-28中任一项所述的啮齿动物, 其中所述致癌蛋白特异性地表达在前列腺中。

30. 根据权利要求29所述的啮齿动物, 其中所述致癌蛋白表达在前列腺的背外侧叶、前叶, 或背外侧和前叶中。

31. 根据权利要求1-30中任一项所述的啮齿动物, 其中所述啮齿动物的特征在于选自由以下项组成的组的至少一种表型: (i) 所述啮齿动物在至少约2月龄后开始在前列腺组织中显示前列腺上皮内瘤形成(PIN); (ii) 所述啮齿动物在前列腺的背外侧叶, 或背外侧叶和前叶中显示PIN; (iii) 所述啮齿动物基本上在前列腺的背外侧叶、前叶, 或背外侧叶和前叶两者中, 但基本上不在前列腺的腹侧叶中显示PIN; (iv) 所述啮齿动物在至少约6月龄后开始显示腺癌; (v) 所述啮齿动物在前列腺的背外侧叶、前叶, 或背外侧叶和前叶两者中显示腺癌; (vi) 所述啮齿动物基本上在前列腺的背外侧叶、前叶, 或背外侧叶和前叶两者中, 但基本上不在前列腺的腹侧叶中显示腺癌。

32. 根据权利要求31所述啮齿动物, 其中所述啮齿动物在约4-6月龄时开始显示PIN。

33. 根据权利要求31所述啮齿动物, 其中所述啮齿动物在约7-9月龄时开始显示腺癌。

34. 根据权利要求31或33所述的啮齿动物, 其中所述腺癌不是神经内分泌癌。

35. 根据权利要求1所述的啮齿动物, 其中腺癌显示在前列腺中并且其中所述腺癌不是神经内分泌癌。

36. 根据权利要求31所述的啮齿动物, 其中所述啮齿动物在约4-6月龄时开始在前列腺的背外侧叶和/或前叶中显示PIN, 并且在约7-9月龄时开始在前列腺的背外侧叶和/或前叶中显示腺癌。

37. 一种根据权利要求1-36中任一项所述的啮齿动物的分离细胞或组织。

38. 一种啮齿动物胚胎干 (ES) 细胞, 其在基因组中包含转基因, 其中所述转基因包含:
- (a) 小鼠 probasin 基因的 5' 调控区,
 - (b) 核酸, 其包含编码致癌蛋白的第一核苷酸序列, 以及
 - (c) 小鼠 probasin 基因的 3' 调控区,
- 其中所述 5' 调控区、所述核酸和所述 3' 调控区彼此可操作地连接。
39. 根据权利要求 38 所述的啮齿动物 ES 细胞, 其中所述啮齿动物 ES 细胞是小鼠 ES 细胞或大鼠 ES 细胞。
40. 根据权利要求 38 所述的啮齿动物 ES 细胞, 其中所述致癌蛋白包括 SV40 肿瘤抗原或 Myc。
41. 一种制备前列腺癌的啮齿动物模型的方法, 其包括:
- (a) 将转基因引入到啮齿动物 ES 细胞中, 所述转基因包含:
 - (i) 小鼠 probasin 基因的 5' 调控区,
 - (ii) 核酸, 其包含编码致癌蛋白的第一核苷酸序列, 以及
 - (iii) 所述小鼠 probasin 基因的 3' 调控区,其中所述 5' 调控区、所述核酸和所述 3' 调控区可操作地连接;
 - (b) 选择在所述基因组中包含所述转基因的修饰啮齿动物 ES 细胞;
 - (c) 在桑椹胚前期时将所述修饰啮齿动物 ES 细胞引入到所述啮齿动物的宿主胚胎中;
 - (d) 将所述宿主胚胎植入到代理孕母体中; 以及
 - (e) 获得所述前列腺癌的啮齿动物模型。
42. 根据权利要求 41 所述的方法, 其中所述转基因被整合到异位基因座中。
43. 根据权利要求 41 所述的方法, 其中所述啮齿动物是小鼠或大鼠。
44. 根据权利要求 41 所述的方法, 其中所述致癌蛋白包括 SV40 肿瘤抗原或 Myc。
45. 根据权利要求 41 所述的方法, 其中所述致癌蛋白特异性地表达在所述啮齿动物的前列腺中。

前列腺癌的啮齿动物模型

[0001] 相关申请的交叉引用

[0002] 本申请要求2015年9月2日提交的美国临时申请号62/213,389的优先权的权益,其全部内容以引用方式并入本文中。

发明领域

[0003] 本公开涉及一种前列腺癌的啮齿动物模型。本文公开的啮齿动物包含转基因,其包含可操作地连接至小鼠probasin基因的5'和3'调控区的SV40肿瘤抗原编码序列。本文公开的啮齿动物显示出转基因的前列腺特异性表达,并且发展出类似人前列腺癌发展的前列腺肿瘤的进展性形式。

[0004] 序列表以引用方式并入

[0005] 序列表为2016年8月24日创建的名称为32350_10161US01_SequenceListing.txt、大小为440KB的ASCII文本文件,其经由EFS-Web提交给美国专利及商标局,并且以引用方式并入本文中。

背景技术

[0006] 人类疾病的动物模型对理解导致疾病的病理机制并开发有效疗法的重要工具。在美国,仅在今年,前列腺癌就有可能夺走约30,000人的生命,并且超过200,000的人将被新近诊断出患有所述疾病。尽管在本领域中已经描述了前列腺癌的小鼠模型,但是它们各自具有局限性。例如,在大鼠probasin启动子控制下表达SV40肿瘤抗原的转基因小鼠表现出快速的疾病进展,通常在6-12周龄时显示前列腺上皮内瘤形成(PIN)并且在18-22周龄显示侵入性癌。此类结果不同于人中癌的特征性缓慢发展。此外,在一些小鼠模型的腹侧叶中已经检测到转基因的显著表达,所述区域不类似于通常产生人前列腺癌的外周区。此外,一些小鼠模型中神经内分泌癌的普遍性也限制了这些模型与神经内分泌疾病患者的小亚群的相关性。

[0007] 因此,存在对如实地重演人前列腺癌的病理特征的前列腺癌的改进动物模型的需要。

发明内容

[0008] 本公开提供一种前列腺癌的新颖啮齿动物模型。本文公开的啮齿动物利用小鼠probasin基因的5'和3'调控区来指导致癌蛋白诸如SV40肿瘤抗原或Myc的前列腺特异性表达。啮齿动物发展出重演人前列腺癌的发展和进展的前列腺肿瘤的进展性形式。

[0009] 在一方面,本公开提供一种啮齿动物,其在基因组中包含转基因,其中转基因从5'至3'包含小鼠probasin基因的5'调控区、包含编码致癌蛋白诸如SV40肿瘤抗原或Myc的第一核苷酸序列的核酸以及小鼠probasin基因的3'调控区。5'调控区、包含编码致癌蛋白诸如SV40肿瘤抗原的第一核苷酸序列的核酸以及3'调控区彼此可操作地连接以实现致癌蛋白诸如SV40肿瘤抗原或Myc在啮齿动物中的前列腺特异性表达。

[0010] 在一些实施方案中,转基因中的5'调控区包含来自小鼠probasin基因座、在小鼠probasin基因的转录起始位点上游的核苷酸序列。在一些实施方案中,转基因中的5'调控区包含来自小鼠probasin基因座、紧邻小鼠probasin基因的转录起始位点上游的核苷酸序列。在某些实施方案中,转基因中的5'调控区包含在小鼠probasin基因的转录起始位点上游(例如,紧邻上游)的至少约5kb、10kb或25kb的序列。在一些实施方案中,5'调控区包含小鼠probasin基因的5'非翻译区(UTR)。在具体的实施方案中,5'调控区包含如SEQ ID NO:6中列出的核苷酸序列。

[0011] 在一些实施方案中,转基因中的3'调控区包含来自小鼠probasin基因座、在小鼠probasin基因的转录终止位点下游的核苷酸序列。在一些实施方案中,转基因中的3'调控区包含来自小鼠probasin基因座、紧邻小鼠probasin基因的转录终止位点下游的核苷酸序列。在某些实施方案中,3'调控区包含在小鼠probasin基因的转录终止位点下游(例如,紧邻下游)的至少约5kb、25kb或50kb的序列。在一些实施方案中,3'调控区包含小鼠probasin基因的3'非翻译区(UTR)。在具体的实施方案中,3'调控区包含如SEQ ID NO:7中列出的核苷酸序列。

[0012] 在一些实施方案中,转基因中的编码SV40肿瘤抗原的核酸序列编码SV40大T抗原或其功能活性片段。在一些实施方案中,转基因中的编码SV40肿瘤抗原的核酸序列编码SV40小t抗原或其功能活性片段。在其他实施方案中,编码SV40肿瘤抗原的核苷酸序列编码SV40大T抗原或其功能活性片段,并且还编码SV40小t抗原或其功能活性片段。在具体的实施方案中,编码SV40肿瘤抗原的核苷酸序列包含如SEQ ID NO:1中列出的序列。

[0013] 在一些实施方案中,转基因还包含报告基因。在具体的实施方案中,报告子是荧光素酶。在具体的实施方案中,报告基因包含如SEQ ID NO:3中列出的核苷酸序列。

[0014] 报告基因可操作地连接至致癌蛋白(例如,SV40的肿瘤抗原或Myc)编码序列,使得报告蛋白的表达反映了致癌蛋白(诸如SV40肿瘤抗原或Myc)的表达。在一些实施方案中,转基因中的致癌蛋白(例如SV40肿瘤抗原)编码序列经由编码2A肽的核苷酸序列在框内与报告基因连接。在具体的实施方案中,2A肽选自由F2A肽、E2A肽、P2A肽和T2A肽组成的组。在具体的实施方案中,2A肽是包含SEQ ID NO:13的氨基酸序列的T2A肽。

[0015] 在一些实施方案中,转基因可以包含附加元件,例如选择性标记基因或盒,其允许选择和鉴定具有转基因的啮齿动物细胞。

[0016] 在一些实施方案中,转基因被整合到啮齿动物基因的异位基因座。在某些实施方案中,转基因的至少1-10个拷贝(即,1、2、3、4、5、6、7、8、9、10个或更多个拷贝)被整合在基因组中的一个或多个异位基因座中。在具体的实施方案中,转基因的多个拷贝(2、3、4、5、6、7、8、9、10个或更多个拷贝)被串联整合在基因组中的一个异位基因座中。在具体的实施方案中,转基因的5个拷贝被串联整合在基因组中的一个异位基因座中。在其他实施方案中,转基因被整合到靶基因座,例如内源性probasin基因座中。

[0017] 在一些实施方案中,本文提供的啮齿动物是小鼠或大鼠。在具体的实施方案中,啮齿动物是小鼠。在一些实施方案中,啮齿动物是选自C57BL品系、129品系或其杂交体的品系。在具体的实施方案中,啮齿动物是F1H4品系的小鼠,其是C57BL/6和129的杂交体。

[0018] 在一些实施方案中,本文提供的啮齿动物表现出本文所述的人前列腺癌的表达和病理特征的任何组合,所述表达和病理特征包括例如,表达编码报告子(例如,荧光素酶)和

致癌蛋白(例如,SV40T抗原或Myc)的区域、发展出前列腺上皮内瘤形成(PIN)所花费的时间段、前列腺中发展出PIN的区域、发展出前列腺腺癌所花费的时间段、前列腺中发展出腺癌的区域以及发展出的腺癌不是神经内分泌癌的特征。在具体实施方案中,啮齿动物在约4-6月龄时开始在前列腺组织中显示前列腺上皮内瘤形成。在一些实施方案中,啮齿动物在约7-9月龄时开始显示腺癌。在某些实施方案中,啮齿动物中发展出的腺癌不是神经内分泌癌。

[0019] 在另一方面,本公开提供从本文提供的啮齿动物分离的细胞或组织。可从其分离出细胞的啮齿动物组织包括例如胸腺、脾、胃肠、肝脏、肺、膀胱以及前列腺。

[0020] 在还另一方面,本公开提供在基因组中包含转基因的啮齿动物胚胎干(ES)细胞,其中转基因从5'至3'包含小鼠probasin基因的5'调控区、编码致癌蛋白诸如SV40肿瘤抗原或Myc的核酸以及小鼠probasin基因的3'调控区,其中5'调控区、编码致癌蛋白诸如SV40肿瘤抗原或Myc的核酸以及3'调控区彼此可操作地连接。在一些实施方案中,啮齿动物ES细胞是小鼠ES细胞或大鼠ES细胞。

[0021] 在另一方面,本公开提供一种用于制备前列腺癌的啮齿动物模型的方法,所述方法包括将转基因引入到啮齿动物ES细胞的基因组中,所述转基因从5'至3'包含小鼠probasin基因的5'调控区、编码致癌蛋白诸如SV40肿瘤抗原或Myc的核酸以及小鼠probasin基因的3'调控区,其中5'调控区、编码致癌蛋白诸如SV40肿瘤抗原或Myc的核酸以及3'调控区彼此可操作地连接;并且选择在基因组中包含转基因的修饰啮齿动物ES细胞;在桑椹胚前期(premorula stage)时将修饰啮齿动物ES细胞引入到啮齿动物的宿主胚胎中;将宿主胚胎植入到代理孕母体(surrogate mother)中;并且获得前列腺癌的啮齿动物模型。

附图说明

[0022] 本申请文件包含至少一个用彩色表现的附图。本专利带有彩色附图的副本将会根据要求且在支付必要的费用后由专利及商标局提供。

[0023] 图1示出了在制备前列腺癌的小鼠模型中使用的转基因及其组件的示例。转基因从5'至3'包含来自小鼠probasin基因的约51kb的5'调控区、编码SV40肿瘤抗原的核酸序列、编码T2A肽的核酸序列、编码萤光素酶报告子的核酸序列、新霉素选择盒以及来自小鼠probasin基因的约107kb的3'调控区。

[0024] 图2示出了对Luci-TRAMP ES克隆A-C10(5x)的鉴定和衍生自ES克隆的小鼠中转基因的前列腺特异性表达。使用定量PCR(qPCR)和针对T-抗原和萤光素酶转基因设计的测定来评估转基因mRNA。从8周龄小鼠收获组织并将所述组织立即浸入RNALater试剂中。通过Regeneron DNA Core提取总RNA,并且根据稍作修改的PerkinElmer说明书进行qPCR。WT,杂交非转基因对照小鼠;A-B1,具有低/无转基因表达的小鼠;A-B8,具有中等但错误表达转基因的小鼠;A-C10,仅具有在背外侧前列腺(DLP)以及前叶前列腺(AP)和精囊(SV)中表达的~5个转基因拷贝的Luci-TRAMP小鼠。从左至右,由图中条形表示的组织次序是DLP、AP和SV、膀胱、肝脏、肺、肾脏、心脏、胸腺和唾液腺。

[0025] 图3A-3C示出了Luci-TRAMP小鼠在其寿命内的若干个年龄处的纵向体内生物发光成像。在图3A中,F1H4WT对照小鼠随着其长大未表现出任何生物发光,而luci-TRAMP小鼠随

着其长大在其腹部区域中显示生物发光增加。图3B是这种腹部生物发光的代表性实例(小鼠ID#1255743),并且在11月龄时,萤光素酶基因的双侧泌尿生殖表达是非常明显的。WT F1H4对照未显示出生物发光,而第二对照小鼠(R26-L-Luc2)在所有器官中且在所有年龄时都显示出生物发光,这是因为萤光素酶基因是由普遍存在的ROSA26(R26)启动子表达的。图3C示出了在肺中以及可能的肝脏和骨髓(BM)中对萤光素酶基因的检测。使用指定的组织进行qPCR测定(与图2中所述相同),并且结果显示与任一对照品系肺相比,在Luci-TRAMP肺中检测到显著的T抗原转基因信号。来自Luci-TRAMP BM和肝脏的信号低于肺,但与对照组织相比具有统计显著性。萤光素酶qPCR结果证实与F1H4肺相比,来自Luci-TRAMP肺的信号具有统计显著性。骨髓和肝脏信号高于WT组织,但没有达到统计学显著性。来自R26-L-Luc2小鼠的结果覆盖了来自Luci-TRAMP小鼠的信号,并且从图中删掉。

[0026] 图4A-4B是Luci-TRAMP和野生型小鼠的背外侧叶的石蜡切片的代表性苏木精/曙红染色图像。图4A示出了来自luci-TRAMP小鼠的背外侧前列腺叶的前列腺上皮内瘤形成(PIN级别被列在每个子图的标记中)。到8月龄时,增生已经进展为腺癌,但是具有完整的基底边界。到11月龄时,前列腺的基质越来越多地被基质细胞浸润(可能是免疫性的)。相比之下,WT F1H4前列腺在11-16月龄时显示出一些与年龄相关的增生,但从未达到luci-TRAMP前列腺的程度。图4B示出了与WT对照小鼠中类似的正常前列腺上皮细胞相比,luci-TRAMP前叶从高级别PIN到腺癌的类型进展。

[0027] 图5A-5B证实,在Luci-TRAMP小鼠中发展出的前列腺肿瘤是上皮肿瘤,而不是神经内分泌肿瘤。图5A示出了使用抗E-钙粘蛋白抗体的前列腺组织样品的免疫染色。棕黑色沉积物指示抗体与由腔上皮细胞表达的蛋白质特异性反应的位置。图5B示出了使用抗突触小泡蛋白抗体的前列腺组织样品的免疫染色。胰腺中的棕色反应产物指示是神经内分泌性质的胰岛细胞。相比之下,F1H4WT和任一叶(DLP或AP)的luci-TRAMP前列腺均未显示出特定的棕色反应产物。根据标准程序进行免疫组织化学方案:对石蜡切片进行切割、去石蜡化并使其与所指出抗体反应。将针对一抗的宿主并与辣根过氧化物酶偶联的二抗用于扩增特异性相互作用。将DAB[图5B]用于可视化免疫复合物。

[0028] SEQ ID NO:1-17总结如下,并且将序列在本公开内容的结尾列出。

[0029] 1 SV-40T抗原编码序列(编码大T和小t抗原)

[0030] 2 T2A编码序列

[0031] 3 萤光素酶编码序列

[0032] 4 SV-40晚期poly(A)序列

[0033] 5 新霉素选择盒

[0034] 6 小鼠probasin基因的51kb 5'调控区序列

[0035] 7 小鼠probasin基因的107kb 3'调控区序列

[0036] 8 SV40大T抗原的氨基酸序列(GenBank:AAB59924.1)

[0037] 9 SV40小t抗原的氨基酸序列(GenBank:AAB59925.1)

[0038] 10 肽F2A的氨基酸序列

[0039] 11 肽E2A的氨基酸序列

[0040] 12 肽P2A的氨基酸序列

[0041] 13 肽T2A的氨基酸序列

- [0042] 14 LXCXE基序
- [0043] 15 SV40标签-T2A-荧光素酶 (Luciferase) 转基因的完整核苷酸序列
- [0044] 16 小鼠probasin基因的包含5'非翻译区 (5'UTR) 的5'序列
- [0045] 17 小鼠probasin基因的包含3'非翻译区 (3'UTR) 的3'序列

具体实施方式

[0046] 本公开提供一种前列腺癌的新颖啮齿动物模型。本文公开的啮齿动物含有转基因,其包含可操作地连接至小鼠probasin基因的5'和3'调控区的编码致癌蛋白(诸如SV40肿瘤抗原或Myc)的致癌基因或核苷酸序列。啮齿动物显示出转基因的前列腺特异性表达,并且发展出类似于人前列腺癌发展的前列腺肿瘤的进展性形式。

[0047] 基于由大鼠probasin启动子驱动SV40肿瘤抗原表达的前列腺癌的转基因小鼠模型已在本领域中有所描述。然而,这些转基因小鼠模型有许多限制。例如,转基因小鼠通常具有快速的疾病进展,通常在6-12周龄时显示前列腺上皮内瘤形成("PIN")并且在18-22周龄显示侵入性癌。结果不同于人中癌的特征性缓慢发展。此外,在一些小鼠模型的腹侧叶中已经检测到转基因的显著表达,所述区域不类似于通常产生人前列腺癌的外周区。此外,一些小鼠模型中神经内分泌癌的普遍性也限制了这些模型与神经内分泌疾病患者的小亚群的相关性。

[0048] 与现有小鼠模型相比,本文公开的啮齿动物更好地重演了在人前列腺癌中发生的病理事件。例如,在本文提供的啮齿动物中前列腺的背外侧叶中检测到转基因的主要表达,所述区域类似于人前列腺的通常产生人前列腺癌的外周区。此外,本文提供的啮齿动物发展出类似于人前列腺肿瘤的各个阶段的前列腺肿瘤的进展性形式,所述各个阶段为从增生至高级别前列腺上皮内瘤形成(或"HGPIN")至侵入性腺癌,与本领域报道的转基因小鼠相比具有慢得多的疾病进展速度和更长的寿命。此外,本文公开的啮齿动物中发展出的腺癌不是神经内分泌性质的。

[0049] 尽管无意于受任何特定理论的束缚,但据信包含在转基因中以指导SV40肿瘤抗原的表达的小鼠probasin基因的5'调控区和/或3'调控区可能是观察到本公开啮齿动物模型的优点的重要因素。

[0050] 转基因

[0051] 术语“转基因”包括经基因工程化以引入到受体生物体的染色体或染色体外DNA的核酸分子。“转基因”还包括整合到生物体的染色体或染色体外DNA中的外源核酸。

[0052] 用于产生转基因啮齿动物的本文公开的转基因从5'至3'包含彼此可操作地连接的小鼠probasin基因的5'调控区、编码SV40肿瘤抗原的核酸序列以及小鼠probasin基因的3'调控区,以实现SV40肿瘤抗原在啮齿动物中的前列腺特异性表达。

[0053] 在一些实施方案中,转基因包含附加元件,诸如报告基因和选择性标记基因等等。

[0054] 术语“可操作地连接”包括核酸元件以功能性关系进行的连接。当核酸序列与另一个核酸序列处于功能性关系中时,所述核酸序列为“可操作地连接”的。例如,如果启动子或增强子或含有启动子或增强子的5'调控区影响编码序列的转录,则其与编码序列可操作地连接。在本公开的上下文中,小鼠probasin基因的5'调控区和小鼠probasin基因的3'调控区与编码SV40肿瘤抗原的核酸序列可操作地连接,以实现编码SV40肿瘤抗原的核酸的转录

起始和终止。

[0055] 本文公开的转基因可以利用已知方法来制备。例如,可以使用细菌同源重组和 **VELOCIGENE®** 技术来组装转基因(参见例如U.S.6,586,251和Valenzuela等人,High-throughput engineering of the mouse genome coupled with high-resolution expression analysis,2003,Nature Biotech.21(6):652-659)。本文提供的转基因的实例包含如SEQ ID NO:15中列出的核苷酸序列。

[0056] 适合用于产生前列腺癌的啮齿动物模型的转基因的各种元件在下文中进一步详细地描述。

[0057] 小鼠probasin基因的5'和3'调控区

[0058] Probasin是最初从大鼠分离的前列腺特异性基因。已经显示大鼠probasin(rPB)基因的启动子能够将异源基因特异性地靶向至转基因小鼠中的前列腺(Greenberg等人,Proc.Natl.Acad.Sci.USA 92:3439-3443,1995;Kasper等人,Lab.Invest.78(3):i-xv,1998;Hill等人,Cancer Res.65(22):10243-10254,2005)。在这些研究中,所利用的启动子区限于来自大鼠probasin基因的5'区的相对较短的区段(Greenberg等人(1995)中的454bp区段(-426/+28));Kasper等人(1998)中的11.5kb片段;和Hill等人(2005)中的458bp区段(-458))。

[0059] 根据本公开,来自小鼠probasin基因的5'调控区和3'调控区包含在转基因中以指导SV40肿瘤抗原的前列腺特异性表达。

[0060] “前列腺特异性表达”意指前列腺中的表达比非前列腺组织和器官中的表达显著更高,或者相比于前列腺中的表达,非前列腺组织和器官中的表达不显著。“显著更高”意指前列腺中的表达比其他组织和器官中的表达高至少50%、100%、200%、300%、400%、500%、600%、700%、800%、900%或1000%。“不显著”意指在每个这样的其他组织中的表达不超过前列腺中表达的20%、10%、5%或1%。

[0061] 在本文转基因中使用的5'和3'调控区包含存在于小鼠probasin基因的5'上游区和3'下游区中的调控元件,并且足以赋予异源基因诸如SV40肿瘤抗原编码序列的前列腺特异性表达。

[0062] 术语“调控元件”包括转录调控序列,其包括5'转录调控序列,诸如启动子、增强子和抑制元件,以及3'转录调控序列,诸如转录终止序列。术语“调控元件”还包括可以影响转录效率和转录物稳定性以及翻译起始的5'非翻译区(5'UTR)和3'UTR中的调控序列。

[0063] 根据本公开,转基因中侧接SV40肿瘤抗原编码序列的5'调控序列包含来自小鼠probasin基因座、在小鼠probasin基因的翻译起始点(或起始密码子ATG)上游的核苷酸序列。在一些实施方案中,转基因中侧接SV40肿瘤抗原编码序列的5'调控序列包含来自小鼠probasin基因座、紧邻小鼠probasin基因的转录起始点(或转录起始位点)上游的核苷酸序列。短语“紧邻转录起始点上游”意指序列(例如,5'调控序列)在小鼠probasin基因的转录起始位点上游并且在所述转录起始位点的35、30、25、20、15、10、5、2或1bp内。在一些实施方案中,转基因中侧接SV40肿瘤抗原编码序列的5'调控序列包含在小鼠probasin基因的转录起始点上游(例如,紧邻上游)的约1kb、2kb、3kb、4kb、5kb、6kb、7kb、8kb、9kb或10kb的序列。在其他实施方案中,侧接SV40肿瘤抗原编码序列的5'序列包含在小鼠probasin基因的转录起始点上游(例如紧邻其上游)的至少10kb、11kb、12kb、13kb、14kb、15kb、16kb、17kb、18kb、

19kb或20kb的序列。在还其他实施方案中,侧接SV40肿瘤抗原编码序列的5'调控序列包含在小鼠probasin基因的转录起始点上游(例如紧邻其上游)的至少15kb、20kb、25kb、30kb、35kb、40kb、45kb或50kb的序列。在具体的实施方案中,侧接SV40肿瘤抗原编码序列的5'序列包含在小鼠probasin基因的转录起始点上游(例如紧邻其上游)的至少约45kb、46kb、47kb、48kb、49kb或50kb的序列。

[0064] 在一些实施方案中,转基因中侧接SV40肿瘤抗原编码序列的5'调控序列还包含小鼠probasin基因的5'UTR序列。在某些实施方案中,侧接SV40肿瘤抗原编码序列的5'序列包含小鼠probasin基因的整个5'UTR序列。在具体的实施方案中,包含在侧接SV40肿瘤抗原编码序列的5'调控序列中的小鼠probasin基因的5'UTR序列包括如SEQ ID NO:16的核苷酸329-469或427-469中列出的核苷酸序列。

[0065] 在具体的实施方案中,转基因中侧接SV40肿瘤抗原编码序列的5'调控序列包含如SEQ ID NO:6中列出的多核苷酸序列、与其具有基本同一性的序列或其片段。

[0066] 在比较两个序列的上下文中,“基本同一性”是指主题序列与参考序列具有至少75%、80%、85%、90%、95%、98%或更大的序列同一性。

[0067] 在某些实施方案中,转基因中侧接SV40肿瘤抗原编码序列的5'调控序列包含如SEQ ID NO:6中列出的多核苷酸序列。在其他实施方案中,侧接SV40肿瘤抗原编码序列的5'调控序列包含SEQ ID NO:6的长度为至少15kb、20kb、25kb、30kb、35kb、40kb、45kb或50kb的片段,优选从SEQ ID NO:6的3'端测量的任何上述长度的片段。

[0068] 根据本公开,转基因中侧接SV40肿瘤抗原编码序列的3'调控序列包含来自小鼠probasin基因座、在小鼠probasin基因的翻译终止位点下游的核苷酸序列。在一些实施方案中,转基因中侧接SV40肿瘤抗原编码序列的3'调控序列包含来自小鼠probasin基因座、紧邻小鼠probasin基因的转录终止位点下游的核苷酸序列。短语“紧邻转录终止位点下游”意指序列(例如,3'调控序列)在小鼠probasin基因的转录终止位点的上游并且在所述转录终止位点的35、30、25、20、15、10、5、2或1bp内。

[0069] 在一些实施方案中,转基因中侧接SV40肿瘤抗原编码序列的3'调控序列包含在小鼠probasin基因的转录终止点下游(例如,紧邻其下游)的至少约500bp、约1kb、2kb、3kb、4kb、5kb、6kb、7kb、8kb、9kb或10kb的序列。在具体的实施方案中,侧接SV40肿瘤抗原编码序列的3'序列包含在小鼠probasin基因的转录终止点下游(例如紧邻其下游)的至少10kb、20kb、30kb、40kb、50kb、60kb、70kb、80kb、90kb或100kb的序列。在其他实施方案中,侧接SV40肿瘤抗原编码序列的3'序列包含在小鼠probasin基因的转录终止点下游(例如紧邻其下游)的约100kb、101kb、102kb、103kb、104kb、105kb、106kb或107kb的序列。

[0070] 在一些实施方案中,侧接SV40肿瘤抗原编码序列的3'序列还包含小鼠probasin基因的3'UTR序列。在某些实施方案中,侧接SV40肿瘤抗原编码序列的3'序列包含小鼠probasin基因的整个3'UTR序列和内含子。在具体的实施方案中,包含小鼠probasin基因的3'UTR和内含子序列的3'序列在SEQ ID NO:17的核苷酸4-3982中列出。

[0071] 在具体的实施方案中,侧接SV40肿瘤抗原编码序列的3'序列包含如SEQ ID NO:7中列出的多核苷酸序列、与其具有基本同一性的序列或其片段。

[0072] 在某些实施方案中,侧接SV40肿瘤抗原编码序列的3'序列包含如SEQ ID NO:7中列出的多核苷酸序列。在其他实施方案中,侧接SV40肿瘤抗原编码序列的3'序列包含SEQ

ID NO:7的长度为至少20kb、30kb、40kb、50kb、60kb、70kb、80kb、90kb、100kb或105kb的片段,优选从SEQ ID NO:7的5'端测量的任何上述长度的片段。

[0073] SV40肿瘤抗原

[0074] 在许多实施方案中,编码致癌蛋白的致癌基因或核酸用于本公开中。在一些实施方案中,致癌基因是Myc (Grabowska等人,Cancer Metastasis Rev.2014年9月;33 (0):377-397)。在其他实施方案中,致癌蛋白是SV40肿瘤抗原。

[0075] 猿猴病毒40 (SV40) 基因组由5243bp组成 (参见,例如,GenBank登录号J02400.1) 并且被分成三个区:早期编码区、晚编码区和调控区 (Ahuja等人,Oncogene 24:7729-7745 (2005))。早期编码区编码在生产性感染早期表达的三种蛋白质:大T抗原、小t抗原和17K T抗原 (Ahuja等人 (2005),同上)。大T抗原和小t抗原由通过从共同的前体mRNA转录物选择性剪接生成的两种mRNA产生 (van Santen等人,Nucleic Acid Res.14 (24):9911-9926 (1986))。已经确立,SV40大T抗原对肿瘤抑制子的p53和成视网膜细胞瘤 (Rb) 家族的抑制和SV40小t抗原对pp2A磷酸酶的作用对于SV40诱导的转化是重要的 (Ahuja等人 (2005),同上)。包括截短的大T抗原的SV40肿瘤抗原在转基因小鼠中的表达导致增生和癌的发展 (Ahuja等人 (2005),同上;Hill等人,Cancer Res.65:10243-54,2005)。

[0076] SV40大T抗原由708个氨基酸组成,并且小t抗原由174个氨基酸组成。大T抗原和小t抗原共享位于蛋白质N末端区中的J结构域。大T抗原具有多个另外的结构域,包括Rb-蛋白结合基序 (LXCXE,SEQ ID NO:14) 和核定位信号 (NLS)。小t抗原具有在J结构域之后的pp2A结合结构域。参见Ahuja等人 (2005),同上。

[0077] 术语“SV40肿瘤抗原”包括全长 (即,野生型) SV40大T抗原或其功能活性片段、全长 (即,野生型) SV40小t抗原或其功能活性片段,或其组合。换句话说,转基因中编码SV40肿瘤抗原的核酸序列可编码全长SV40大T抗原或其功能活性片段 (无小t抗原)、全长SV40小t抗原或其功能活性片段 (无大T抗原) 或其组合 (例如核酸序列编码SV40大T抗原和SV40小t抗原)。

[0078] 术语“功能活性片段”是指具有一个或多个与全长 (野生型) T抗原相关的功能的T抗原片段;所述功能,例如,全长T抗原的与诱导转化相关或与引发、促进或维持肿瘤形成相关的功能;大T抗原抑制p53或Rb活性的功能;或小t抗原结合和作用于pp2A的功能。T抗原的功能活性片段的实例是Hill等人 (2005),同上中描述的截短的大T抗原,其仅包括野生型大T抗原 (没有小T抗原) 的N末端121个氨基酸,也被称为“T121”。发现包含J结构域和pRb结合结构域的T121突变体抗原在小鼠中足以使pRb家族蛋白失活并产生PIN和腺癌 (Hill等人 (2005),同上)。

[0079] 已经描述了其他突变体SV40T抗原也保留了野生型SV40T抗原引起、促进或维持肿瘤形成的功能。例如,由Kasper等人 (Lab Invest.78 (3):i-xv,1998) 描述的SV40基因缺失突变体仅表达大T抗原而不表达小t抗原,并且也发现在小鼠中诱导PIN和腺癌。

[0080] 根据一些实施方案,转基因中的编码SV40肿瘤抗原的核酸序列编码全长SV40大T抗原或其功能活性片段,而不编码小t抗原。在某些实施方案中,大T抗原包含SEQ ID NO:8的氨基酸序列或与其基本上相同的序列。在具体的实施方案中,编码SV40肿瘤抗原的核酸序列编码包含SEQ ID NO:8的氨基酸序列的大T抗原。在其他具体实施方案中,编码SV40肿瘤抗原的核酸序列编码截短的大T抗原,其包含SEQ ID NO:8的前121个氨基酸。

[0081] 在一些实施方案中,转基因中的编码SV40肿瘤抗原的核酸序列编码全长SV40小t抗原或其功能活性片段,而不编码大T抗原。在某些实施方案中,小t抗原包含SEQ ID NO:9的氨基酸序列或与其基本上相同的序列。在具体的实施方案中,编码SV40肿瘤抗原的核酸序列编码具有SEQ ID NO:9的氨基酸序列的小t抗原。

[0082] 在还其他实施方案中,转基因中的编码SV40肿瘤抗原的核酸序列编码全长SV40大T抗原或其功能活性片段和全长SV40小t抗原或其功能其活性片段。在某些实施方案中,编码SV40肿瘤抗原的核酸序列编码全长SV40大T抗原和全长SV40小t抗原。在具体的实施方案中,编码SV40肿瘤抗原的核酸包含SEQ ID NO:1中列出的核苷酸序列或与其基本上相同的核苷酸序列。

[0083] 报告子

[0084] 在一些实施方案中,本文公开的转基因还包含编码提供或能够产生可检测信号的报告蛋白(“报告子”)的报告基因。适用于本公开中的报告子包括 β -半乳糖苷酶、mPlum、mCherry、tdTomato、mStrawberry、J-Red、DsRed、mOrange、mKO、mCitrine、Venus、YPet、黄色荧光蛋白(YFP)、增强型黄色荧光蛋白(EYFP)、Emerald、绿色荧光蛋白(GFP)、增强型绿色荧光蛋白(EGFP)、CyPet、青色荧光蛋白(CFP)、Cerulean、T-Sapphire、萤光素酶、碱性磷酸酶或其组合。

[0085] 在某些实施方案中,报告子是萤光素酶。术语“萤光素酶”包括催化底物萤光素的氧化反应的氧化酶的种类,并且作为氧化反应的结果发射生物性光。适用于本文中的萤光素酶包括来自萤火虫物种北美萤火虫(*Photinuspyralis*)的萤火虫萤光素酶、来自其他生物体的萤光素酶,以及其功能性衍生物(诸如通过基因工程技术制备的功能衍生物)。野生型(或天然存在的)萤光素酶的“功能性衍生物”包括与野生型萤光素酶的不同在于具有一个或多个氨基酸修饰(例如,添加、缺失或取代)并且基本上保留野生型萤光素酶的酶活性的蛋白质。短语“基本上保留野生型萤光素酶的酶活性”包括当功能性衍生物和野生型萤光素酶在其酶活性方面进行比较时两个方向上的差异不超过30%、25%、20%、15%、10%、5%、2%或1%。在一些实施方案中,野生型萤光素酶的功能性衍生物具有与野生型萤光素酶的氨基酸序列基本上相同的氨基酸序列。在具体的实施方案中,报告基因编码萤光素酶并且包含如SEQ ID NO:3中列出的核苷酸序列或与SEQ ID NO:3基本上相同的核苷酸序列。

[0086] SV40肿瘤抗原编码序列与报告基因之间的连接

[0087] 在转基因中报告基因序列被放置成与编码SV40肿瘤抗原的核酸序列可操作地连接,使得报告子的表达反映SV40肿瘤抗原的表达并且与SV40肿瘤抗原的表达相一致。SV40肿瘤抗原编码序列与报道核酸之间的可操作连接可以本领域中已知的多种方式,诸如通过使用多顺反子表达策略实现。多顺反子表达载体同时表达来自相同mRNA(即,由相同启动子产生的转录物)的两种或更多种单独的蛋白质。用于多顺反子表达蛋白质的合适策略包括使用2A肽和使用内部核糖体进入位点(“IRES”)。

[0088] 在一些实施方案中,SV40肿瘤抗原编码序列和报告基因通过编码2A肽的核酸序列彼此连接。可将SV40肿瘤抗原编码序列置于2A肽编码序列的N末端处,并且将报道基因置于2A肽编码序列的C末端处。可替代地,可将SV40肿瘤抗原编码序列置于2A肽编码序列的C末端处,并且将报道基因置于2A肽编码序列的N末端处。

[0089] 2A肽是小的“自裂解”肽,通常具有18-22个氨基酸的长度。已经证实,核糖体跳过

2A肽的C末端处的甘氨酸基-脯氨酸基肽键的合成,这导致2A肽与其紧邻下游肽之间的裂解(Kim等人,PLoS One 2011;6(4):e18556)。因此,“裂解掉”的下游肽在其N末端处具有脯氨酸。2A介导的裂解是所有真核细胞中的普遍现象。2A肽已经从小核糖核酸病毒、昆虫病毒和C型轮状病毒鉴定出(Szymczak等人,“Development of 2A peptide-based strategies in the design of multicistronic vectors,”Expert Opin Biol Ther 5:627-638(2005))并且适用于本公开中。在某些实施方案中,用于连接SV40肿瘤抗原和报告蛋白的2A肽是选自以下项的2A肽:FMDV 2A(“F2A”)、马鼻炎A病毒(ERAV) 2A(“E2A”)、猪捷申病毒-1 2A(“P2A”)或一点褐翅蛾(Thoseaasigna)病毒2A(“T2A”)。在具体的实施方案中,这些2A肽具有以下序列:

[0090] F2A VKQTLNFDLLKLAGDVESNPGP (SEQ ID NO:10)

[0091] E2A QCTNYALLKLAGDVESNPGP (SEQ ID NO:11)

[0092] P2A ATNFSLLKQAGDVEENPGP (SEQ ID NO:12)

[0093] T2A EGRGSLLTCDGVEENPGP (SEQ ID NO:13)

[0094] 在一些实施方案中,T2A肽被用于提供SV40肿瘤抗原与报告蛋白之间的连接。在一个实施方案中,本文使用的T2A肽包含SEQ ID NO:13的氨基酸序列。在具体的实施方案中,T2A肽由SEQ ID NO:2的核苷酸序列编码。

[0095] 在其他实施方案中,SV40肿瘤抗原编码序列和报告核酸序列经由内部核糖体进入位点(IRES)彼此连接。IRES是本领域中充分记载的核苷酸序列,其允许在mRNA中间的翻译起始,从而提供来自单个mRNA分子的两种或更多种蛋白质产物的翻译。

[0096] 转基因中的其他元件

[0097] 在一些实施方案中,本文提供的转基因还包含编码选择标记的核酸序列。此类选择标记包括但不限于新霉素磷酸转移酶(neo^r)、潮霉素B磷酸转移酶(hyg^r)、嘌呤霉素-N-乙酰转移酶(puro^r)、杀稻瘟素S脱氨酶(bsr^r)、黄嘌呤/鸟嘌呤磷酸核糖转移酶(gpt)或单纯疱疹病毒胸苷激酶(HSV-k)或其组合。

[0098] 选择标记的核酸可以包含在表达盒中,其中编码选择标记的核酸序列可操作地连接至在所需细胞中具有活性的一种或多种启动子-例如,两个启动子,其中一种在啮齿动物细胞诸如啮齿动物ES细胞中具有活性,并且另一种在细菌细胞中具有活性。

[0099] 在一些实施方案中,编码选择标记的核酸序列侧接有位点特异性重组靶序列,所述位点特异性重组靶序列允许在整合转基因之后除去位点特异性重组靶序列之间的核酸序列(例如,选择标记核酸)。可侧接选择标记核酸或任何感兴趣的多核苷酸的位点特异性重组靶序列可包括但不限于loxP、lox511、lox2272、lox66、lox71、loxM2、lox5171、FRT、FRT11、FRT71、attP、att、rox及其组合。

[0100] 在具体的实施方案中,本文提供的转基因包含新霉素选择盒,其从5'至3'含有loxP(5')序列、TATA盒-hUb(人遍在蛋白启动子、EM7启动子、新霉素磷酸转移酶编码序列、polyA序列和loxP(3')序列。在具体的实施方案中,新霉素选择盒包含如SEQ ID NO:5中列出的核苷酸序列或与其基本上相同的序列。一旦选择了包含转基因的ES细胞克隆,就可通过例如经由电穿孔引入Cre重组酶来切除新霉素选择盒。可替代地,可以通过将由ES克隆产生的后代与表达Cre重组酶的删除者啮齿动物品系杂交来除去新霉素选择盒。

[0101] 在一些实施方案中,本文提供的转基因还包含SV40晚期区poly A序列,其置于

SV40肿瘤抗原编码序列的3'侧;并且如果存在报告核酸,则置于报告核酸的3'侧。在具体的实施方案中,SV40晚期区poly A序列包含如SEQ ID NO:4中列出的核苷酸序列或与其基本上相同的序列。

[0102] 前列腺癌的啮齿动物模型

[0103] 提供了啮齿动物,其在基因组中含有编码SV40肿瘤抗原的转基因,所述转基因可操作地连接至小鼠probasin基因的5'和3'调控区。此类啮齿动物特异性地在前列腺中表达转基因,并且显示出类似于人前列腺癌发展的前列腺肿瘤的进展性形式。

[0104] 在本领域中已经描述了前列腺癌的转基因小鼠模型。例如,转基因腺癌的小鼠前列腺(TRAMP)模型已得到Greenberg等人(1995),同上,和Gingrich等人(Cancer Res.56:4096-4102,1996)的描述,并且利用前列腺特异性大鼠probasin最小启动子(-427/+28bp)来驱动SV40大T抗原和小t抗原的表达。转基因在TRAMP小鼠的前列腺上皮细胞中特异性表达,与前列腺的背侧叶、外侧叶和前叶相比,在腹侧叶中的表达水平显著更高(Greenberg等人(1995)的图1)。TRAMP小鼠到6-12周龄时发展出前列腺上皮内瘤形成(PIN),其到20-24周龄时在前列腺的背外侧叶中进展至低分化且侵入性的腺癌(Greenberg等(1995))。在TRAMP小鼠中形成的腺癌显现向远位点(例如淋巴结和肺)的转移(Gingrich等人(1996),同上),但很少向骨转移。在TRAMP小鼠中发展出的大部分腺癌是神经内分泌起源的(Chiaverotti等人,Am J Pathol.172(1):236-246,2008),这种类型的癌仅占人前列腺癌患者的10%。TRAMP模型衍生型式得到Hill等人(2005),同上的描述,并且利用截短的大鼠probasin启动子区段(-458bp),其中两个富含腺嘌呤和尿苷的元件(或“ARE”)被替换以驱动截短的SV40大T抗原的表达。转基因在前列腺的背侧叶、前叶和腹侧叶中表达。这种TRAMP衍生型式小鼠到2月龄时发展出PIN,其到4月龄时进展至癌。前列腺癌的LADY转基因小鼠模型得到Kasper等人(1998),同上的描述,并且利用较大的(11.5kb)大鼠probasin启动子区段以驱动截短的SV40大T抗原,从而导致前列腺中的转基因表达。LADY小鼠到5-10周龄发展出腺体增生和PIN,之后到20周发展出高级别上皮发育异常和低分化的腺癌,主要是在前列腺的背外侧叶和前叶中。LADY小鼠很少显现至其他器官的转移。所有这些转基因小鼠模型都具有快速的疾病进展速度,这不同于人中癌的特征性缓慢发展。TRAMP小鼠中神经内分泌癌的普遍性也限制了这种小鼠模型与神经内分泌疾病患者的小亚群的相关性。

[0105] 本文提供的啮齿动物比现有技术中描述的模型更好地重演人前列腺癌的病理特征。例如,在啮齿动物的背外侧叶中检测到转基因的主要表达,所述区域类似于人前列腺的通常产生人前列腺腺癌的外周区。此外,本文提供的啮齿动物发展出类似于人前列腺癌的各个阶段的前列腺肿瘤的进展性形式,所述各个阶段为从增生至高级别前列腺上皮内瘤形成(或“HGPIN”)至腺癌,与本领域报道的TRAMP和LADY小鼠相比具有慢得多的疾病进展速度和更长的寿命。此外,本文公开的啮齿动物中发展出的腺癌不是神经内分泌性质的。

[0106] 在一些实施方案中,转基因在啮齿动物的前列腺的背外侧叶和/或前叶中表达。在一些实施方案中,背外侧叶和/或前叶中的转基因的表达高于前列腺的腹侧叶中的表达。在具体的实施方案中,转基因在背外侧叶、前叶或在组合的背外侧叶和前叶中的表达比在腹侧叶的表达显著更高(即,高至少30%、40%、50%、75%、100%或更多)。

[0107] 本文提供的啮齿动物发展出前列腺上皮内瘤形成或“PIN”。PIN通常特征为预先存在的腺体空间内非典型细胞的增殖,但未侵入(即尚未破坏基底膜)。在一些实施方案中,啮

啮齿动物在约3-7月龄或约4-6月龄时开始显示PIN。在某些实施方案中,啮齿动物在至少约2、3、4、5或6月龄之前未显示PIN。在一些实施方案中,啮齿动物中发展出的PIN位于前列腺的背外侧叶,或背外侧叶和前叶中。在具体的实施方案中,啮齿动物中发展出的PIN基本上位于前列腺的背外侧叶和/或前叶中,但基本上不在前列腺的腹侧叶中。术语“基本上”意指显示PIN的区域的至少50%、60%、70%、80%、90%或更多位于前列腺的背外侧叶和/或前叶中,而显示PIN的区域的不超过50%、40%、30%、20%、10%或更少位于在前列腺的腹侧叶中。

[0108] 本文提供的啮齿动物发展出前列腺腺癌。腺癌通常特征为非典型细胞的浸润性和/或破坏性增殖。一般来说,非典型细胞具有一定程度的腺体分化。在一些实施方案中,啮齿动物在约7-9月龄或在约8月龄时开始显示前列腺腺癌。在某些实施方案中,啮齿动物在至少约6、7、8、9或10月龄之前未显示腺癌。在一些实施方案中,啮齿动物中发展出的腺癌位于前列腺的背外侧叶,或背外侧叶和前叶中。在具体的实施方案中,啮齿动物中发展出的腺癌基本上位于前列腺的背外侧叶和/或前叶中,但基本上不在前列腺的腹侧叶中。术语“基本上”意指显示腺癌的区域至少50%、60%、70%、80%、90%或更多位于前列腺的背外侧叶和/或前叶中,而前列腺中显示腺癌的区域的不超过50%、40%、30%、20%、10%或更少位于在前列腺的腹侧叶中。

[0109] 在一些实施方案中,在另一个器官中检测到报告基因(例如,荧光素酶基因)。在具体的实施方案中,在选自以下项的器官中检测到报告基因:膀胱、肝脏、肺、肾脏、心脏、胸腺、唾液腺、骨或其组合。

[0110] 在一些实施方案中,本文提供的啮齿动物中发展出的腺癌不是神经内分泌癌。神经内分泌(NE)癌与不同的形态学和标记表达模式相关(Chiaverotti等人(2008),同上)。例如,NE癌以低分化和高侵入性病变为特征;形成扭曲导管结构的大团块,包埋正常或增生性腺体,通常涉及多个叶;并且常常有大面积的坏死。在免疫染色测定中,NE癌通常针对雄激素受体(AR)的染色呈阴性或显示出针对AR的微弱且弥散性的细胞质染色,但针对突触小泡蛋白的染色呈阳性,这与针对突触小泡蛋白的染色呈阴性并针对AR具有强核染色的正常和增生性前列腺上皮细胞形成鲜明对比。在具体的实施方案中,本文提供的啮齿动物中发展出的腺癌不表达突触小泡蛋白,即针对突触小泡蛋白的染色呈阴性,如通过免疫染色确定的,但是针对上皮标记E-钙粘蛋白呈阳性。

[0111] 在一些实施方案中,本文提供的啮齿动物表现出上述的表达和病理特征的任何组合,所述表达和病理特征包括例如,表达转基因的区域、发展出PIN所花费的时间段、前列腺中发展出PIN的区域、发展出前列腺腺癌所花费的时间段、前列腺中发展出腺癌的区域以及发展出的腺癌不是神经内分泌癌的特征。在许多实施方案中,啮齿动物可以表现出以下特征中的任一个的组合:(i)在前列腺的背外侧叶和/或前叶中表达转基因;(ii)在至少约2、3、4、5或6月龄之前未显示PIN,并且在具体的实施方案中,在约3-7月龄或约4-6月龄时开始显示PIN;(iii)在前列腺的背外侧叶,或背外侧和前叶中显示PIN,并且在一些实施方案中,基本上在前列腺的背外侧叶和/或前叶中,但基本上不在前列腺的腹侧叶中显示PIN;(iv)在至少约6、7、8、9或10月龄之前未显示腺癌,并且在具体的实施方案中,在约7-9月龄或约8月龄时开始显示前列腺腺癌;(v)在前列腺的背外侧叶,或背外侧叶和前叶中显示腺癌,并且在具体的实施方案中,基本上在前列腺的背外侧叶和/或前叶中,但基本上不在前列腺的

腹侧叶中显示腺癌。在具体的实施方案中,本文公开了一种啮齿动物,其在约4-6月龄时开始在前列腺组织中显示PIN,并且在约7-9月龄时开始显示腺癌,其中在啮齿动物中发展出的腺癌不是神经内分泌癌。

[0112] 本文提供的啮齿动物与本领域中报道的TRAMP和LADY小鼠相比具有更长的存活时间,这可能是因为本文提供的啮齿动物具有更慢的疾病进展速度并且不发展更具侵袭性的神经内分泌癌。在一些实施方案中,本文提供的啮齿动物至少活到16、18、20、22或24月龄。在具体的实施方案中,啮齿动物存活不长于24月龄。

[0113] 本文提供的啮齿动物包括例如小鼠、大鼠和仓鼠。在一些实施方案中,啮齿动物是小鼠或大鼠。在具体的实施方案中,啮齿动物是小鼠。

[0114] 在一些实施方案中,啮齿动物是C57BL品系的,例如选自以下项的C57BL品系的小鼠:C57BL/A、C57BL/An、C57BL/GrFa、C57BL/KaLwN、C57BL/6、C57BL/6J、C57BL/6ByJ、C57BL/6NJ、C57BL/10、C57BL/10ScSn、C57BL/10Cr和C57BL/01a。在其他实施方案中,啮齿动物是129品系的,例如选自由以下项组成的组的129品系的小鼠:129P1、129P2、129P3、129X1、129S1(例如129S1/SV、129S1/SvIm)、129S2、129S4、129S5、129S9/SvEvH、129/SvJae、129S6(129/SvEvTac)、129S7、129S8、129T1、129T2(参见例如,Festing等人(1999),Mammalian Genome 10:836;Auerbach等人(2000),Biotechniques 29(5):1024-1028,1030,1032)。在一些实施方案中,啮齿动物是前述129品系和前述C57BL/6品系的混合体的小鼠。在某些实施方案中,小鼠是前述129品系的混合体(即杂合体),或前述C57BL品系的混合体,或C57BL品系和129品系的混合体。在某些实施方案中,小鼠是C57BL/6品系与129品系的混合体。在具体的实施方案,小鼠是VGF1品系,也称为F1H4品系,其是C57BL/6和129的杂合体。在其他实施方案中,小鼠是BALB品系,例如BALB/c品系。在一些实施方案中,小鼠是BALB品系和另一种前述品系的混合体。

[0115] 在一些实施方案中,啮齿动物是大鼠。在某些实施方案中,大鼠选自Wistar大鼠、LEA品系、Sprague Dawley品系、Fischer品系、F344、F6和Dark Agouti。在其他实施方案中,大鼠是选自由Wistar、LEA、Sprague Dawley、Fischer、F344、F6和DarkAgouti组成的组的两个或更多个品系的混合体。

[0116] 制备转基因啮齿动物的方法

[0117] 本文提供的啮齿动物可使用本领域中已知的方法形成。在示例性实施方案中,可以构造含有编码SV40肿瘤抗原的转基因的载体,所述转基因可操作地连接至小鼠probasin基因的5'和3'调控区。例如,可以利用细菌人工染色体(BAC)克隆以及细菌同源重组和VELOCIGENE®技术来构造携带所需转基因的BAC载体(参见例如U.S.6,586,251和Valenzuela等人(2003),High-throughput engineering of the mouse genome coupled with high-resolution expression analysis,Nature Biotech.21(6):652-659)。

[0118] 在一些实施方案中,可例如通过电穿孔将携带转基因的BAC载体引入到啮齿动物胚胎干(ES)细胞中。本领域已经描述了小鼠ES细胞和大鼠ES细胞。参见,例如US 7,576,259、US 7,659,442、US 7,294,754和US 2008-0078000A1(所有所述专利均以引用的方式并入本文)描述了小鼠ES细胞和用于制备经基因修饰的小鼠的VELOCIMOUSE®方法;并且US 2014/0235933 A1和US 2014/0310828 A1(所有所述专利均以引用的方式并入本文)描述了大鼠ES细胞和制备经基因修饰的大鼠的方法。

[0119] 可以选择具有整合在基因组中的转基因的ES细胞。在一些实施方案中,选择了具有整合到啮齿动物的靶基因座中的转基因的ES细胞。靶基因座包括例如内源性啮齿动物 probasin 基因座(例如经由同源重组介导的整合)。可设计有利于靶向整合的靶向载体并将所述靶向载体用于产生具有靶向整合的转基因的ES细胞。在其他实施方案中,选择具有整合到基因组中的转基因的ES细胞,而不管发生整合的位点如何;换句话说,转基因的一个或多个拷贝可以整合在一个或多个异位位点(即除靶基因座之外的位点)。在一些实施方案中,转基因的至少1-10个拷贝被整合在ES细胞的基因组中。在某些实施方案中,转基因的多个拷贝,例如转基因的2、3、4、5、6、7、8、9、10个或更多个拷贝被整合在ES细胞的基因组中。转基因的多个拷贝可以被整合到基因组的一个基因座或多个基因座中。在具体的实施方案中,转基因的多个拷贝(即,2、3、4、5、6、7、8、9、10个或更多个拷贝)被串联整合到基因组的一个基因座中。随后将具有整合在基因组中的转基因的ES细胞用作供体ES细胞以通过使用 VELOCIMOUSE® 方法(参见例如US 7,576,259、US 7,659,442、US 7,294,754和US 2008-0078000 A1)或US 2014/0235933 A1和US 2014/0310828 A1中描述的方法注射到桑椹胚前期胚胎(例如,8细胞期胚胎)中。孵育包含供体ES细胞的胚胎直至胚泡期,然后植入到代理孕母体中以产生完全源自供体ES细胞的F0啮齿动物。可以使用检测转基因序列的存在的等位基因测定改型(MOA)(Valenzuela等人,同上),通过对分离自剪尾的DNA进行基因分型来鉴定具有转基因的啮齿动物幼崽。可以基于以下项对转基因阳性的幼崽进行进一步筛选:转基因的前列腺特异性表达(例如前列腺中相对于其他组织和器官中的表达水平,以及在前列腺各个部分中,诸如在背侧叶、外侧叶、前叶和腹侧叶中的表达),和/或前列腺癌的发展和进展(例如,PIN和癌的发生和进展)。

[0120] ES克隆能够产生展示出可如上述那样鉴定的所需表型的啮齿动物。所需表型包括例如基本上在前列腺的背外侧叶和前叶中的转基因的前列腺特异性表达,以及在约4-6月龄时具有PIN的发生并且在约8月龄时具有癌的发生。此类ES克隆可以培养和储存。在一些实施方案中,ES克隆含有整合在靶基因座(例如,内源性probasin基因座)处的转基因的至少一个拷贝。在其他实施方案中,转基因的至少1-10个拷贝被整合在基因组中的一个或多个异位位点处。在一些实施方案中,ES克隆含有整合在基因组中的转基因的多个拷贝,例如转基因的2、3、4、5、6、7、8、9、10个或更多个拷贝。在某些实施方案中,转基因的多个拷贝(2、3、4、5、6、7、8、9、10个或更多个拷贝)被整合到基因组的多个基因座中。在某些其他实施方案中,转基因的多个拷贝被串联整合到基因组的一个基因座,例如一个异位基因座中。在具体的实施方案中,本文提供了命名为克隆A-C10(5x)的小鼠ES克隆,其具有串联整合在基因组的一个基因座中的转基因的五个拷贝,其中转基因包含SV40标签-T2A-萤光素酶的编码序列,其侧接小鼠probasin基因的5'和3'调控区。

[0121] 在其他实施方案中,转基因啮齿动物可以不使用ES细胞形成。例如,可以基于常规转化方法(例如电穿孔)修饰啮齿动物的非ES细胞(例如成纤维细胞或诱导的多能细胞)的基因组,并且这种非ES细胞的修饰基因组可以通过采用核转移技术转移至合适的受体细胞,例如卵母细胞。然后将修饰的细胞(例如,修饰的卵母细胞)在合适的条件下孕育以形成胚胎。参见,例如Han等人,"Nuclear Transfer in Mouse Oocytes and Embryos",Methods in Enzymology 476:171-184(2010),和Zhou等人,"Generation of Fertile Cloned Rats by Regulating Oocyte Activation",Science 302:1179(2003)。

[0122] 使用转基因啮齿动物的方法

[0123] 本文提供的啮齿动物允许开发用于鉴定、诊断和分期前列腺癌的方法,以及更好地理解导致前列腺癌的进展的分子机制。此外,此类啮齿动物可用于筛选和开发用于预防和/或治疗前列腺癌的治疗剂。

[0124] 通过以下实施例进一步说明本说明书,所述实施例不应解释为以任何方式具有限制性。所有引用文献(包括贯穿本申请所引用的参考文献、发布的专利和公布的专利申请)的内容特此以引用的方式明确并入。

[0125] 实施例1.Luci-TRAMP小鼠的产生

[0126] 本实施例说明转基因小鼠(在本文中也称为Luci-TRAMP小鼠)的产生,其包含转基因,所述转基因包含SV40肿瘤抗原-T2A-荧光素酶多肽的核酸编码序列,其侧接小鼠probasin基因的5'调控区和3'调控区。

[0127] 可以经由细菌同源重组和VELOCIGENE®技术来构造含有转基因的载体(参见例如U.S.6,586,251和Valenzuela等人,High-throughput engineering of the mouse genome coupled with high-resolution expression analysis,2003,Nature Biotech.21(6):652-659)。简而言之,利用含有小鼠probasin基因的细菌人工染色体(BAC)克隆RP23-417B18,并且对其进行如下修饰。一个片段,由75个碱基对(bp)的小鼠5'-UTR、SV40-T抗原(没有终止密码子)、接着是T2A序列、NcoI/XhoI/NheI限制性位点和终止密码子和89bp的小鼠3'-UTR组成,由GenScript合成并将其克隆到R6K骨架中进行增殖。使用添加侧翼NcoI和XhoI限制性位点的引物,从Promega质粒(pGL4)扩增荧光素酶2cDNA序列及其自身的pA。将侧接XhoI和NheI位点的新霉素抗性盒,与荧光素酶扩增子共连接到合成片段中。通过上游(75bp)和下游(89bp)的同源序列介导细菌同源重组替换小鼠Pbsn基因(从起始ATG密码子至终止TAG密码子)。在对接合区进行测序以确保重组是无缝的并且进行限制性片段分析以确定修饰BAC的预期大小之后,将BacVec线性化并纯化以用于电穿孔。

[0128] 将所得的修饰BAC载体用图形绘示于图1中。修饰BAC载体的组件的核苷酸序列在SEQ ID NO:1-7中列出。

[0129] 将这种修饰BAC载体电穿孔到VGF1(也称为F1H4)C57BL6/129F1杂合体胚胎干(ES)细胞中,以产生具有整合在基因组中的SV40-T2A-荧光素酶转基因的修饰ES细胞。基于对遗传霉素(G418)的抗性选择含有SV40-T2A-荧光素酶转基因的修饰ES细胞。

[0130] 然后可以将选择的ES细胞克隆用作供体ES细胞并且通过VELOCIMOUSE®方法显微注射到桑椹胚前期小鼠胚胎中(参见,例如,US 7576259、US 7659442、US 7294754和US 2008-0078000 A1)。孵育包含供体ES细胞的小鼠胚胎直至胚泡期,然后将所述小鼠胚胎植入到代理孕母体中以产生完全源自供体ES细胞的F0小鼠。使用检测转基因序列的存在的等位基因测定改型(MOA)(Valenzuela等人,同上),通过对分离自剪尾的DNA进行基因分型来鉴定具有转基因的小鼠。针对T抗原和荧光素酶的表达,进一步筛选转基因阳性的小鼠。

[0131] 克隆A-C10(5x)被鉴定为产生在8周时显示出前列腺特异性转基因表达的小鼠的ES克隆(图2)。使用定量PCR(qPCR)和针对T-抗原和荧光素酶转基因设计的测定来评估转基因mRNA。从8周龄小鼠收获组织并将所述组织立即浸入RNALater试剂中。通过Regeneron DNACore提取总RNA,并且根据稍作修改的PerkinElmer说明书进行qPCR。WT,杂交非转基因对照小鼠;A-B1,具有低/无转基因表达的小鼠;A-B8,具有中等但错误表达转基因的小鼠;

A-C10,仅具有在背外侧前列腺(DLP)以及前叶前列腺(AP和精囊(SV)中表达的~5个转基因(trasngene)拷贝的Luci-TRAMP小鼠。

[0132] 实施例2.Luci-TRAMP群组的纵向分析

[0133] 将从ES克隆A-C10(5x)产生的Luci-TRAMP小鼠被命名为MAID 2319并且用于本实施例中描述的实验中。将在基因组中的Rosa 26基因座处含有转基因“R26-L-luc2”的命名为MAID 2363的小鼠(其以非组织特异性方式表达萤光素酶报告子和野生型小鼠F1H4作为对照)。

[0134] 饲养35只MAID2319小鼠(Luci-TRAMP)的群组,以允许前列腺肿瘤发展,与此同时饲养相等数目的MAID 2363小鼠(R26-L-Luc2)和F1H4小鼠。在2、4、6、8、11和16个月时从每个组取出5只小鼠,分别用于体内荧光素酶成像、μCT扫描(以评估瘦肉/脂肪/骨质量)、组织病理学分析(从4个月开始)和分子表型分析(RNA-seq和qPCR)。

[0135] 对于纵向研究,在每个指定的时间点(下面的插图),向所有动物皮下给予荧光素(150mg/kg PerkinElmer),通过异氟烷麻醉,并且在12-14min后,在Lumina XR体内成像系统上扫描。使用Living软件自动绘制具有轮廓周边的ROI,并以5%的阈值计算强度信号(总通量)。

[0136] 使用BioSearch Technologies和Regeneron的内部搜索参数设计qPCR探针。将组织在TRIzol中均化,并使用氯仿进行相分离。使用miRNeasy微型试剂盒(Qiagen,目录号217004)根据制造商的说明书纯化含有总RNA的水相。使用MagMAX™Turbo™DNA酶缓冲液和TURBO DNA酶试剂(Life Technologies的Ambion)除去基因组DNA。使用SuperScript® VILO™主混合物试剂(Life Technologies的Invitrogen,目录号11755500)将mRNA逆转录成cDNA。使用ABI 7900HT序列检测系统(Applied Biosystems)用TaqMan®基因表达主混合物试剂(Life Technologies的Applied Biosystems,目录号4370074)扩增cDNA。使用β-肌动蛋白作为内部对照基因以归一化任何cDNA输入差异。使用WT(F1H4)肺作为参考样品来计算样品之间mRNA的倍数差异。每个基因型每种组织,N=5只雄性。使用GraphPad Prism软件(版本3.0)进行统计和图形分析。使用学生未配对t检验分析数据。在P值<0.05下,将结果视作统计上显著的。误差条示出SD。

[0137] 结果在图3A-3C中示出。由组织病理学分析揭示的前列腺癌进展概述在表1中。mPIN和腺癌的分配基于以下准则。

[0138] mPIN:预先存在的腺体空间内非典型细胞的增殖,但没有侵入(即,尚未破坏基底膜)。基于与特定GEM模型相容的形态(非典型),mPIN分化自上皮增生。mPIN的进展与年龄相关,并且已被证实发展至侵入性癌。分级是基于在1-4的等级上的结构或细胞学异常的增加程度:

[0139] mPIN1(上皮增生)=轻度的核和/或细胞质异型性(与炎症无关),其中细胞排列为单层或双层。

[0140] mPIN2=两层或更多层的细胞,在簇或乳头状分支中具有核异型性。

[0141] mPIN3=增加/更频密的异型性,具有部分至完全地填充内腔的更广泛乳头状分支。

[0142] mPIN4=显著/频密的异型性,具有高度增生的分支和腺体空间扩张,但没有明显的侵入。

[0143] 腺癌:具有一定程度的腺体分化的非典型细胞的浸润性和/或破坏性增殖。在小鼠中,基质结缔组织生成和不同程度的间质性炎症与更晚期的病变相关联。

[0144] 代表性病理染色图像提供在图4A-4B中。来自Luci-TRAMP小鼠的前列腺肿瘤的免疫组织化学分析在图5A-5B中示出。将组织在新鲜制备的4%多聚甲醛中固定过夜,然后石蜡包埋,切片,并用苏木精和伊红染色以进行分期。分别使用针对突触小泡蛋白 (Abcam# 32127) 或E-钙粘蛋白 (CellSignaling克隆64E10) 的抗体针对神经内分泌或上皮抗原对一些切片进行分析。

[0145] 这些研究揭示了以下内容。

[0146] ■从4月龄开始,所有Luci-TRAMP前列腺(每个年龄组5/5只小鼠)在解剖显微镜下可见到前列腺肿瘤发展(在原本透明的前列腺内的实体白色斑点/区域),在对照中未检测到异常。

[0147] ■在4个月和6个月时,在每个年龄中分析的3/3Luci-TRAMP小鼠在背外侧叶和前叶中都展示出非侵入性前列腺肿瘤。在每个年龄组中分析的4/4对照小鼠在任何叶中均未显示出异常。

[0148] ■在8个月和11个月时,每组3/3Luci-TRAMP小鼠在背外侧叶和前叶都展示出前列腺腺癌。在每个年龄组中分析的3/3对照小鼠在任何叶中均显示出很小的异常。

[0149] ■在16个月时,5/5Luci-TRAMP小鼠在前叶中展示出前列腺腺癌,并且4/4在背外侧叶中检测到前列腺腺癌。

[0150] ■在Luci-TRAMP小鼠中,腹侧叶显示出微小变化(限于上皮增生)。

[0151] ■虽然从8月龄开始观察到微侵入,但到16月龄时没有血管侵入的迹象。

[0152] ■IHC分析显示,Luci-TRAMP前列腺肿瘤针对上皮标记E-钙粘蛋白的染色呈阳性并且针对神经内分泌标记突触小泡蛋白的染色呈阴性。

[0153] 表1.Luci-TRAMP小鼠前列腺病理综述

[0154]

	叶	小鼠 ID	背外侧的(DLP)	前的(CG)	腹侧的
4 个月	F1H4	M6	WNL	WNL	WNL
		M8	WNL	WNL	NI
	ROSA: 2319	1258782	WNL	WNL	WNL
		1258784	WNL	WNL	NI
	Luci-TRAMP	M6	上皮增生	mPIN-3, 病灶性的	上皮增生
		M8	上皮增生	mPIN-2, 病灶性的	上皮增生
		M10*	上皮增生, 病灶性的	上皮增生, 病灶性的	NI
6 个月	F1H4	M12	WNL	上皮增生, 弥散性的	WNL
		M14	WNL	WNL	WNL
	ROSA: 2314	M12	WNL	WNL	WNL (少量存在)
		M14	WNL	WNL	NI
	Luci-TRAMP	M11	上皮增生	mPIN-3, 病灶性的	WNL
		M13	上皮增生	mPIN-3, 弥散性的	EH; 腺内腔扩张
		M15	上皮增生	mPIN-3, 弥散	腺扩张, WNL

[0155]

8 个月	F1H4	16	WNL	性的 WNL	WNL
		18	WNL	WNL	NI
		20	WNL	WNL	WNL
	Luci-TRAMP	M16	腺癌	腺癌	上皮增生(NI)
		M18	腺癌	腺癌	上皮增生
		M20	腺癌	腺癌	NI
11 个月	F1H4	21	WNL	上皮增生, 病灶 性的	NI
		22	WNL	WNL	NI
		23	WNL	WNL	WNL
	Luci-TRAMP	M21	腺癌	腺癌	NI
		M22	腺癌	腺癌	NI
		M23	腺癌	腺癌	NI
16 个月	F1H4	26	WNL (侧向扩张)	上皮增生, 病灶 性的	WNL
		27	WNL	WNL	NI
		28	WNL	上皮增生, 病灶 性的	WNL (扩张)
		29	WNL (侧向扩张)	WNL	WNL (扩张)
		30	WNL (扩张)	上皮增生, 病灶 性的	NI
	Luci-TRAMP	M26	腺癌	腺癌	NI
		M27	非常少的样本	腺癌	NI
		M28	腺癌	腺癌	NI
		M29	腺癌	腺癌	NI
		M30	腺癌	腺癌	NI

[0156] WNL=在正常限值内;NI=未鉴定的。

序列表

<110> Regeneron Pharmaceuticals, Inc.

<120> 前列腺癌的啮齿动物模型

<130> 32350PCT (10161W001)

<150> 62/213,389

<151> 2015-09-02

<160> 17

<170> PatentIn 3.5版

<210> 1

<211> 2470

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸:SV-40 T编码序列抗原编码序列
(编码大T抗原和小t抗原)

<400> 1

```

atggataaag ttttaaacag agaggaatct ttgcagctaa tggaccttct aggtcttgaa 60
aggagtgcct gggggaatat tcctctgatg agaaaggcat atttaaaaaa atgcaaggag 120
tttcatcctg ataaaggagg agatgaagaa aaaatgaaga aaatgaatac tctgtacaag 180
aaaatggaag atggagtaaa atatgctcat caacctgact ttggaggctt ctgggatgca 240
actgagggtat ttgcttcttc cttaaactct ggtgttgatg caatgtactg caaacaatgg 300
cctgagtgtg caaagaaaat gtctgctaac tgcatatgct tgctgtgctt actgaggatg 360
aagcatgaaa atagaaaatt atacaggaaa gatccacttg tgtgggttga ttgctactgc 420
ttcgattgct ttagaatgtg gtttggactt gatctttgtg aaggaaacctt acttctgtgg 480
tgtgacataa ttggacaaac tacctacaga gatttaaagc tctaaggtaa atataaaatt 540
tttaagtgtg taatgtgtta aactactgat tctaattgtt tgtgtatttt agattccaac 600
ctatggaaact gatgaatggg agcagtgggtg gaatgccttt aatgaggaaa acctgttttg 660
ctcagaagaa atgccatcta gtgatgatga ggctactget gactetcaac attctactcc 720
tccaaaaaag aagagaaaagg tagaagaccc caaggacttt ccttcagaat tgctaagttt 780
tttgagtcat gctgtgttta gtaatagaac tcttgcttgc tttgctattt acaccacaaa 840
ggaaaaagct gcactgctat acaagaaaat tatggaaaaa tattctgtaa cttttataag 900
taggcataac agttataatc ataacatact gttttttctt actccacaca ggcataagat 960
gtctgctatt aataactatg ctcaaaaatt gtgtaccttt agctttttta tttgtaaagg 1020
ggttaataag gaatatgtga tgtatagtgc cttgactaga gatccatttt ctgttattga 1080
ggaaagtttg ccaggtgggt taaaggagca tgattttaat ccagaagaag cagaggaaac 1140
taaacaagtg tcctggaagc ttgtaacaga gtatgcaatg gaaacaaaat gtgatgatgt 1200
gttggtattg cttgggatgt acttgggaatt tcagtacagt tttgaaatgt gtttaaaatg 1260
tattaaaaaa gaacagccca gccactataa gtaccatgaa aagcattatg caaatgctgc 1320

```

tatatttgct gacagcaaaa accaaaaaac catatgccaa caggctgttg atactgtttt 1380
 agctaaaaag cgggttgata gcctacaatt aactagagaa caaatgttaa caaacagatt 1440
 taatgatcctt ttggatagga tggatataat gtttggttct acaggctctg ctgacataga 1500
 agaatggatg gctggagttg cttggctaca ctgtttgttg cccaaaatgg attcagtgggt 1560
 gtatgacttt ttaaaatgca tgggtgtacaa cattcctaaa aaaagatact ggctgtttta 1620
 aggaccaatt gatagtggta aaactacatt agcagctgct ttgcttgaat tatgtggggg 1680
 gaaagcttta aatgttaatt tgcccttggg caggctgaac tttgagctag gagtagctat 1740
 tgaccagttt ttagtagttt ttgaggatgt aaaggggact ggaggggagt ccagagattt 1800
 gccttcaggt cagggaatta ataacctgga caatttaagg gattatttgg atggcagtgt 1860
 taaggtaaac ttagaaaaaga aacacctaaa taaaagaact caaatatttc cccctggaat 1920
 agtcaccatg aatgagtaca gtgtgcctaa aacactgcag gccagatttg taaaacaaat 1980
 agatttttagg cccaaaagatt atttaaagca ttgcctggaa cgcagtgagt ttttgttaga 2040
 aaagagaata attcaaagtg gcattgcttt gcttcttatg ttaatttggg acagacctgt 2100
 ggctgagttt gctcaaagta ttcagagcag aattgtggag tggaaagaga gattggacaa 2160
 agagtttagt ttgtcagtgt atcaaaaaat gaagttaaat gtggctatgg gaattggagt 2220
 tttagattgg ctaagaaaca gtgatgatga tgatgaagac agccaggaaa atgctgataa 2280
 aaatgaagat ggtggggaga agaacatgga agactcaggg catgaaacag gcattgattc 2340
 acagtcccaa ggctcatttc aggcccctca gtctcacag tctgttcatg atcataatca 2400
 gccataccac attttagag gttttacttg ctttaaaaaa cctcccacac ctccccctga 2460
 acctgaaaca 2470

<210> 2

<211> 54

<212> DNA

<213> 人工序列

<220>

<223> 合成寡核苷酸:T2A编码序列

<400> 2

gagggcagag gaagtctgct aacatgcggt gacgtcgagg agaatcctgg cccc 54

<210> 3

<211> 1653

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸:荧光素酶编码序列(Luc2)

<400> 3

atggaagatg ccaaaaacat taagaagggc ccagcgccat tctaccact cgaagacggg 60
 accgccggcg agcagctgca caaagccatg aagcgctacg ccctggtgcc cggcaccatc 120
 gcctttaccg acgcacatat cgaggtggac attacctacg ccgagtactt cgagatgagc 180
 gttcggctgg cagaagctat gaagcgctat gggctgaata caaacatcg gatcgtggtg 240

tgcagcgaga atagcttgca gttcttcatg cccgtgttgg gtgccctgtt catcggtgtg 300
 gctgtggccc cagctaacga catctacaac gagecgagc tgctgaacag catgggcatc 360
 agccagccca ccgtcgtatt cgtgagcaag aaagggctgc aaaagatcct caacgtgcaa 420
 aagaagctac cgatcataca aaagatcatc atcatggata gcaagaccga ctaccagggc 480
 ttccaaagca tgtacacctt cgtgacttcc catttgccac ccggcttcaa cgagtacgac 540
 ttctgtcccc agagcttcga ccgggacaaa accatcgccc tgatcatgaa cagtagtggc 600
 agtaccggat tgcccaaggg cgtagcccta ccgcaccgca ccgcttgtgt ccgattcagt 660
 catgcccgcg accccatctt cggcaaccag atcatcccc acaccgctat cctcagcgtg 720
 gtgccatttc accacggctt cggcatgttc accacgtgg gctacttgat ctgcggcttt 780
 cgggtcgtgc tcatgtaccg cttcgaggag gagctattct tgcgcagctt gcaagactat 840
 aagattcaat ctgccctgct ggtgccca caatttagct tcttcgctaa gagcactctc 900
 atcgacaagt acgacctaa caacttgca gagatcgcca gcggcggggc gccgctcagc 960
 aaggaggtag gtgaggccgt ggccaaacgc ttccacctac caggcatccg ccagggtac 1020
 ggcttgacag aaacaaccag cgccattctg atcaccccc aaggggacga caagcctggc 1080
 gcagtaggca aggtgggtgcc cttcttcgag gctaaggtgg tggacttgga caccggtaa 1140
 aactgggtg tgaaccagcg cggcgagctg tgcgtccgtg gcccctgat catgagcggc 1200
 tacgttaaca accccgaggc tacaacgct ctcatcgaca aggacggctg gctgcacagc 1260
 ggcgacatcg cctactggga cgaggacgag cacttcttca tcgtggaccg gctgaagagc 1320
 ctgatcaaat acaagggtca ccaggtagcc ccagccgaac tggagagcat cctgctgcaa 1380
 caccacaaca tcttcgacgc cggggtcgcc ggctgcccc acgacgatgc cggcgagctg 1440
 cccgccgag tcgtcgtgct ggaacacggt aaaaccatga ccgagaagga gatcgtggac 1500
 tatgtggcca gccagggtac aaccgccaag aagctgcgcg gtggtgttgt gttcgtggac 1560
 gaggtgccta aaggactgac cggcaagttg gacgcccga agatccgca gattctcatt 1620
 aaggccaaga agggcggcaa gatcgccgtg taa 1653

<210> 4

<211> 222

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸:SV-40晚期poly (A) 序列

<400> 4

cagacatgat aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa 60
 aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca 120
 ataaacaagt taacaacaac aattgcattc attttatgtt tcaggttcag ggggaggtgt 180
 gggaggtttt ttaaagcaag taaaacctct acaaatgtgg ta 222

<210> 5

<211> 2654

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸:新霉素选择盒(LoxP (5') -TATA box-hUb (人
遍在蛋白启动子)-EM7启动子-新霉素-polyA - loxP(3'))

<400> 5

```

tcgagataac ttcgtataat gtatgtctata cgaagttata tgcattggcct ccgcgccggg 60
ttttggcgcc tcccgcgggc gccccctcc tcacggcgag cgctgccacg tcagacgaag 120
ggcgccagcga gcgtcctgat cttccgccc ggacgctcag gacagcggcc cgctgctcat 180
aagactcggc cttagaaccc cagtatcagc agaaggacat tttaggacgg gacttgggtg 240
actctagggc actggttttc tttccagaga gcggaacagg cgaggaaaag tagtcccttc 300
tcggcgattc tgcggaggga tctccgtggg gcggtgaacg ccgatgatta tataaggacg 360
cgccgggtgt ggcacagcta gttccgtcgc agccgggatt tgggtcgcgg ttcttgtttg 420
tggatcgctg tgatcgtcac ttggtgagta gcgggtgctt gggctggccg gggctttcgt 480
ggccgccggg ccgctcgggt ggacggaagc gtgtggagag accgccaagg gctgtagtct 540
gggtccgcga gcaaggttgc cctgaactgg gggttggggg gagcgccagc aaatggcggc 600
tgttcccag tcttgaatgg aagacgctt tgaggcgggc tgtgaggtcg ttgaaacaag 660
gtggggggca tgggtggcgg caagaaccca aggtcttgag gccttcgcta atgcgggaaa 720
gctcttattc ggggtgagat ggctggggca ccatctgggg accctgacgt gaagtttgtc 780
actgactgga gaactcgggt tgcgtctgt tgcggggcg gcagttatgg cggtgccgtt 840
gggcagtgca cccgtacctt tgggagcgcg cgccctcgtc gtgtcgtgac gtcaccgctt 900
ctgttggtt ataatacagg gtggggccac ctgccgtag gtgtgcgta ggcttttctc 960
cgctgcagga cgcagggttc gggcctaggg taggtctcc tgaatcgaca ggccgccgac 1020
ctctggtgag gggagggata agtgaggcgt cagtttcttt ggtcggtttt atgtacctat 1080
cttcttaagt agctgaagct ccggttttga actatgcgt cggggttggc gagtgtgttt 1140
tgtgaagttt tttaggcacc tttgaaatg taatcattt ggtcaatat taattttcag 1200
tgtagacta gtaaattgtc cgctaaattc tggccgtttt tggctttttt gtagacgtg 1260
ttgacaatta atcatcggca tagtatatcg gcatagtata atacgacaag gtgaggaaact 1320
aaacatggg atcggccatt gaacaagatg gattgcacgc aggttctccg gccgcttggg 1380
tgagagaggc attcggctat gactgggcac aacagacaat cggtgctct gatgccgccc 1440
tgttccggct gtcagcgcag gggcgcccgg ttctttttgt caagaccgac ctgtccggtg 1500
ccctgaatga actgcaggac gaggcagcgc ggctatcgt gctggccacg acgggcgttc 1560
cttgcgcagc tgtgctcgac gttgtcactg aagcgggaag ggactggctg ctattgggcg 1620
aagtgccggg gcaggatctc ctgtcatctc accttgcctc tgccgagaaa gtatccatca 1680
tggctgatgc aatgcggcgg ctgcatacgc ttgatccggc tacctgccc ttcgaccacc 1740
aagcgaaaca tcgcatcgag cgagcacgta ctcggatgga agccggtctt gtcgatcagg 1800
atgatctgga cgaagagcat caggggctcg cgccagccga actgttcgcc aggtcgaagg 1860
cgcgcatgcc cgacggcgat gatctcgtcg tgacctatgg cgatgcctgc ttgccgaata 1920
tcatggtgga aaatggccgc tttcttgat tcatcgactg tggccggtg ggtgtggcgg 1980
accgctatca ggacatagcg ttggtaccc gtgatattgc tgaagagctt ggcggcgaat 2040
gggctgaccg cttcctcgtg ctttacggta tcgccgtcc cgattcgcag cgcacgcct 2100

```

tctatcgccct tcttgacgag ttcttctgag gggatccgct gtaagtctgc agaaattgat 2160
 gatctattaa acaataaaga tgtccactaa aatggaagtt tttcctgtca tactttgtta 2220
 agaaggggtga gaacagagta cctacatttt gaatggaagg attggagcta cgggggtggg 2280
 ggtgggggtgg gattagataa atgcctgctc ttactgaag gctctttact attgctttat 2340
 gataatgttt catagttgga tatcataatt taaacaagca aaaccaaatt aagggccagc 2400
 tcattcctcc cactcatgat ctatagatct atagatctct cgtgggatca ttgtttttct 2460
 cttgattccc actttgtggt tctaagtact gtggtttcca aatgtgtcag tttcatagcc 2520
 tgaagaacga gatcagcagc ctctgttcca catacacttc attctcagta ttgttttgcc 2580
 aagttctaatt tccatcagac ctcgacctgc agcccctaga taacttcgta taatgtatgc 2640
 tatacgaagt tatg 2654

<210> 6

<211> 51565

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸:51kb 5'臂序列(1-51565)

<400> 6

tcaacatcct taatcatcag gaaaatgcaa atcaaaacaa ccctgagatt ccacctcaca 60
 ccagtcagaa tggctaagat caaaaattca ggtgacagca gatgctgccg aggatgtgga 120
 gaaagaggaa cactcctcca ttgttgggtg gattgcaagc ttgtacaacc actctgaaa 180
 tcagtctggc agttcctcag aaaattggac atagtactac tggaggatcc cgcaatacct 240
 cttctgggca tatatccaga agatgtttca accagtaaga aaaacacatg ctccactatg 300
 ttcatagcag ccttatttat aatagccaga agctggaaag tatccagatg cccctcaaca 360
 gaggaatgga tacagaaaat gtgatacatt tacacaatgg agtactactc agctacgaaa 420
 aagaatgaat ttatgaaatt cctaggcaaa tggatggacc tggagggcat catcctgagt 480
 gaggtaaccc aatcacaaaa gaactcacac aatatgtact ccctgataag tggatattag 540
 ccagaaaact tagaataccc aagatataag atacaatttg ctaaacgcat gaaactcaag 600
 aagaacaaag accaaagtgt ggacactttg ccccgcttta gaattgggaa caaacacccc 660
 atggaaggag ttacagagac aaagggttga gctgagacaa aaggatgggc catctagaga 720
 ctaacatata aggggatcca tcccataatc agcttccaaa tgctgacacc actgtgtaca 780
 ctagcaagat tttgctgaaa ggaccagat atggctgtct cttctgagac tatgctgggg 840
 cctagcaaac acagaagtgg atgctcacag tcagctattg gatggatgac agagctccca 900
 atagaggagc tagagaaaat acccaagtag atgaaggat ctgcaatcct ataggtggat 960
 caaaaatatg aactaagcaa taccctctg gagctcgtgt ctctagctgc atatgaatca 1020
 gaaaatggcc tagtcggcaa tcaatggaaa gagaggccca ttggttgtcc aaactttata 1080
 tgccatcaata cagggaacg ccagggccaa gaagtgggag tgggtgggta ggtgagtgt 1140
 tctggaagcc tgttggggac tttctggata acattggaaa tgtaaatgaa ataaataccc 1200
 aataataaaa aaagaacatt caaaaaaaaaa aaaaaagatc ctaacccaaa acatccatga 1260
 tatccaggac ataattagaa agcaaggtta ttccattata aaaacatttt tttttttagt 1320

atagaataga gtttatatag ggtataggta ggggagttaa gagagtagta gagacagaga 1380
 aaggcagaga gaagaagaga atagagaagt agaggccggt catgaccaca tggaaagagg 1440
 ggggaaggga tgcagagaaa ggggacacat ggggcaggag agaggcaaga gtgtaagagt 1500
 acaaaaccaa atttacacaa tgtttttcca taaatttagc cctacaaagg ataatagggtg 1560
 gaaaacacca caacaaggag ggaaactaca ccctcaaaaa agcaagaaag taatcttaca 1620
 tcaaacccaa aagaaaatag ctacatgaac agaatttcaa ctctaataac aaaaataaca 1680
 ggaagcaaaa atggctttta cttaaaatct cttaacatcc acggactcaa ctctccaata 1740
 aaaacacata tattaataga ctggatatgt aaacaggacc cagcattttg ctgcatacag 1800
 gaaacgcgcc tcagtgacaa agacagatac tacctcagag taaaaggcta gaaaacaatt 1860
 ttccaagcaa gtggtcccaa gaaacaagct gtaataacca ttctaataac aaataaaaatt 1920
 aacttaatag aaacagattt gtaaaagtgg attaaggaac tccacataaa accagagaca 1980
 ctgaaactta tagaggagaa agtagggaaa agcctcgaag atatgggtac aggggaaaaa 2040
 ttctgaata gaacagcaat ggcttgtgct gtaagatcga gagtcaacga atgggacctc 2100
 ataaaattgc aaagcttctg caaggaaaaa gacaccatca gtaagacaaa aaggctacca 2160
 acagagtggg aaaggatctt tacctattct aaatcagata ggggactaat atccaatata 2220
 tataaagaac tcaagaagggt ggactccaga aaattaaata agcccattaa aaatggggct 2280
 cagagataaa caaagaattc tcacctgagg aataccgaat ggctgagaag cacttgaaaa 2340
 aatgttcaac atccttaatc atcaggaaaa tgcaaatcaa aacaaccctg agattccacc 2400
 tcacaccagt cagaatggct aagatcaaaa attcaggtga cagcagatgc tgccgaggat 2460
 gtggagaaag aggaacactc ctccattgtt ggtgggattg caagcttgta caaccactct 2520
 ggaaatcagt ctggcagttc ctcaaaaaat tggacatagt actactggag gatcccgcaa 2580
 tacctctcct gggcatatat ccagaagatg tttcaaccag taagaaaaat acatgctcca 2640
 ctatgttcat agcagcctta ttataatag ccagaagctg gaaagtatcc agatggccct 2700
 caacagagga atggatacag aaaatgtgat acatttacac aatggagtac tactcagcta 2760
 ttaaaaagaa tgaatttatg aaattcctag ccaaatggat ggacgtggag ggcacatcc 2820
 tgagtgggt aaccaatca caaaagaact cacacagtat gtactcactg ataagtggat 2880
 attagctcag aaacttagaa tacccaagat ataggataca atttccaaaa cacatgaaac 2940
 tcaagaagac caaagaccaa aatatggaca ttttgcctg tcttagaatt gggaacaaaa 3000
 caccatgga aggagctaca gagacaaagt ttggagctga gacgaaagggt tggaccctct 3060
 agagactgcc atatccgggg atccatccca taatcagctt ccaatcgtg acaccattgc 3120
 atacactagc aagatcttgc tgaaaggacc cagatatagc tgtctcttgt gagactatgc 3180
 tggggcctag caaacacaga agtggatgct cacagtcage tattggatgg atcacagggc 3240
 cccaatgga ggacctagag aaagtaacca aggagctaaa gggatttgca accctataag 3300
 tggaacaaca atatgaacta agcattaccc ccagagctc gtgtctctag ctgcataatgt 3360
 ataagaagat ggcctagtgc gccatcagtg gaaagagagg ccattggtc gtgcaaaactt 3420
 tatatgcctc agtacagggg aacagcaggg ccaagaagtc atagtgagag ggttggggag 3480
 tgggtggggg agcgtgtggg ggacttttgg gatagcattg gaaatgtaac tgaaataaat 3540
 acctaattaa aaaattagaa aatcaaaaaa agaaggtctt tttttttcac aatattaatt 3600
 ctactaggct gtacacttac gagatcttca aattctagta tgtttttttt ttcttttttt 3660

tttttaaaga tatatttatt tattttatgt atgtgagtag actgtagctg tcttcagatg 3720
 caccagaaga gcgcattcaga tctcattaca gatgggtcatg agccaccatg tgggttgctgg 3780
 gaattgaact caggacctct ggaagagcag ttgggttctct taaccgctga gccatctctc 3840
 cagccccctct agtatgtttc ttaatctctt tctttacaca tttaaagttt tcattgtaga 3900
 ggggtttttta accacttttg ttatgtatat tctaaatatt ttattttatt tgagaaactg 3960
 gtaagaggag tgtgtccatg atctctttct cagaatgctt gttactcata tgtattaaga 4020
 cttatgaatt tgacaagtcc ctcccgcttg actcgagccc cgggctacct tgccagcaga 4080
 gtcttgccca acacccgcaa gggcccacac gggactcccc acgggatacct aagacctctg 4140
 gtgagtggaa cacagcgcct gcccgaatcc aatcgcgagg aacctgagac tgcagtacat 4200
 aggggaagcag gctacccggg cctgatctgg ggcacaagcc ctttcagctc cactcgagcc 4260
 ccgggctacc ttgccagcag agtcttgccc aacacccgca agggccaca cgggactccc 4320
 cacgggatcc taagacctct ggtgagtggg acacaacttc tgccaggagt ctggttcgaa 4380
 caccagatat ctgggtacct gccctgcaag aagagagctt gcctgcagag aatactctgc 4440
 ccactgaaac taagaagagt gctacctcc aggtctgctt atagaggcta acagagtcac 4500
 ctgaagtaca agctcttaac agagacaact ataacagcta gcttcagaga ttaccagatg 4560
 gcgaaaggca aacgtaagaa tcctactaac agaaatcaag accactcacc aacatcagaa 4620
 cgcagcactc ccaccccacc tagtcctggg caccacaaca caaccgaaaa tctagacca 4680
 gatttaaaaa catttctcat gatgatgata gaggacatca agaaggactt tcataagtca 4740
 cttaaagaat tacaggagag cactgctaaa gagttacagg cccttaaaga aaagcaggaa 4800
 aacacagcca aacaggtaga aatcattaaa gaaaaacagg aaaacacatc caaacagggtg 4860
 atggaaatga acaaaaccat actagaacta aaagggttag tagacacaat aaagaaaacc 4920
 caaagcgagg caacgctaga gatagaaacc ctaggaaaga gatctggaac catagatgtg 4980
 agcatcagca acagaatata agaaatggaa gagagaatct caggagcaga agattccata 5040
 gagaacatcg acacaacagt caaagaaaat acaaaatgca aaaggatcct aactcaaac 5100
 atccaggtaa tccaggacac aatgagaaga ccaaacctac ggataatagg aataaatgag 5160
 aatgaagatt ttcaacttaa agggccagct aatatcttca acaaaataat agaagaaaat 5220
 ttcccaaaca taaaaaaga catgcccag atcatacaag aagcctacag aactccaaat 5280
 agactggacc agaaaagaaa ttccctccga cacataataa ttagaacaac aaatgcaata 5340
 aataaagata gaatattaaa agcagtaagg gagaaaggct aagtaacata taaaggaagg 5400
 actatcagaa ttacaccaga cttttacca gagactatga aagccagaag agcctggaca 5460
 gatgttatac agacactaag agaacacaaa tgccagccca ggctactata cccggccaaa 5520
 ctctcaatta ccatagatgg agaaacaaa gtattccacg acaaaaacaa attcacacaa 5580
 tatctttcca tgaatccagc cttcaaagg ataataacag aaaagaagca atacaaggac 5640
 ggaaatcacg ccctagaaca accaagaaaag taatcattca acaaacaaa agaagacag 5700
 ccacaagaac agaattgcaa ctctaacaac aaaaataaaa ggaagcaaca attacttttc 5760
 cttaatatct cttaatatca atggactcaa ttcccaata aaaagacata gactaacaga 5820
 ctggctacac aaacaggacc caacattctg ctgcttacag gaaacccatc tcagggaaaa 5880
 agacagacac tacctcagag tgaaaggctg gaaaacaatt ttccaagcaa atggactgaa 5940
 gaaacaagct ggagtagcca ttttaatatc ggataaaatc gacttccaac ccaagttat 6000

caaaaaagac agggaggagac acttcatact catcaaaggt aaaatcctcc aagaggaact 6060
 ctcaattctg aatatctacg caccaaatgc aagggcagcc acattcatta gagacacttt 6120
 agtaaaactc aaacatacat tgcacctcac acaataatag tgggagactt caacacacca 6180
 ctttcttcaa aggacagatc gtggaaacag aaactaaaca gggacacagt gaaactaaca 6240
 gaagttatga aacaaatgga cctgacagat atctacagaa cattttatcc taaaacaaaa 6300
 ggatatacct tcttctcagc acctcacggg accttctcca aaattgatca tataattggt 6360
 cacaaaaacag gcctcaatag atacaaaaat attgaaattg tcccatgtat cctatcagac 6420
 caccatggcc taagactgat cttcaataac aacataaata atggaaagcc aacattcacg 6480
 tggaaactga acaacactct tctcaatgat accttggtca aggaaggaaa aaagaaagaa 6540
 attaaagact ttttagagtt taatgaaaat gaagccacaa cgtacccaaa cttttgggac 6600
 acaatgaaag catttctaag agggaaaactc atagctctga gtgcctccaa gaagaaacgg 6660
 gggacagcac atactagcag cttgacaaca catctaaaag ccctagaaaa aaaggaagca 6720
 aattcaccca agaggagtag acggcaggaa ataatcaaac tcaggggtga aatcaacca 6780
 gtggaaacaa gaagaaatat tcaaagaatt aaccaaacga ggagttggtt ctttgagaaa 6840
 atcaacaaga tagataaacc cttagctaga ctactaaag ggcacaggga caaaatccta 6900
 attaacaaaa tcagaaatga aaaggagac ataacaacag atcctgaaga aatccaaaac 6960
 accatcagat ctttctacaa aaggctatac tcaacaaaac tggaaaacct ggacgaaatg 7020
 gacaaatttc tggacagata ccaggtacca aagttgaatc aggatcaagt tgatcatcta 7080
 aacagtccca tatcacctaa agaaatagaa gcagttatta atagtctccc aaccaaaaaa 7140
 agcccaggac cagatggggt tagtgcagag ttctatcaga cttcaaaga agatctaatt 7200
 ccagttctgc acaaactatt tcacaaaata gaagtagaag gtactctacc caactcattt 7260
 tatgaagcca ctattactct aatacctaaa ccacagaaag acccaacaaa gagagaactt 7320
 cagaccaatt tctcttatga atatcgatgc aaaaatcctc aataaaattc tcgctaacca 7380
 aatccaagaa cacattaaag caatcatcca tcctgaccaa gtaggtttta ttccagggat 7440
 gcagggatgg tttaatatac gaaaatccat caatgtaatc cattatataa acaactcaa 7500
 agacaaaaac cacatgatca tctcgttaga tgcagaaaac gcatttgaca agatccaaca 7560
 ccatttcatg ataaaagttt tggaaagatc aggaattcaa ggcccatacc taacatgat 7620
 aaaagcaatc tacagcaaac cagtagccaa catcaaagta aatggagaga agctggaagc 7680
 aatcccacta aaatcaggga ctagacaagg ctgcccactt tctccctacc tgcccacttt 7740
 ctccctacct tttcaacata gtacttgaag tattagccag agcaattcga caacaaaagg 7800
 agatcaaggg gatacaaatt ggaaaagagg aagtcaaaat atcacttttt gcagatgata 7860
 tgatagtata tataagtac cctaaaaatt ctaccagaga acacctaaac ctgataaaca 7920
 gcttcggtga agtagctgga tataaaatta actcaaaca gtcaatggcc tttctctaca 7980
 caaagaataa acaggctgag aaagaaatta gggaacaac acccttctca atagtcaaca 8040
 ataataataa atatcttggc gtgactctaa ctaaggaagt gaaagatctg tatgataaaa 8100
 acttcaaatc tctgaagaaa gaaattaagg aagatctcag aagatggaaa gatctccat 8160
 gctcatggat tggcaggatc aacattgtaa aaatggctat cttgccaaaa gcaatctaca 8220
 gattcaatgc aatccccatc aaaattccaa ctcaattctc aaacgaattg gaaggagcaa 8280
 tttgcaaatt tgtctggaat aacaaaaaac ctaggatagc aaaaagtctt ctcaaggata 8340

```

aaagaacttc tggcggaatc accatgccag acctaacgct ttactgcaga gcaattgtga 8400
taaaaactgc atggtactgg tatagagaca gacaagtaga ccaatggaat agaattgaag 8460
accagaaaat gaaccacac acctatggtc acttgatctt cgacaaggga gctaaaacca 8520
tccagtggaa gaaagacagc tttttcaaca attagtgcgt gcacaactgg ttgatatcgt 8580
gtagaagaat gcgaatcgat ccatacttat ctcttgtac taagggtcaaa tctaagtgga 8640
ttaaggaact tcacataaaa ccagagacac tgaaacttat agaggagaaa gtggggaaaa 8700
gccttgaaga tatgggcaca ggggaaaaat tcctgaacag aacagcaatg gcttgtgctg 8760
taagatcaag aattgacaca tgggacctaa tgaaactcca aagtttctgc aaggcaaaag 8820
acaccgtcaa taagacaaaa agaccacca cagattggga aaggatcttt acctatccta 8880
aatcagatag gggactaata tccaacatat ataaagaact caagaagggtg gacttcagaa 8940
aatcaataa cccattaaa aaatgggggtc cagaactgaa caagaattc tcacctgagg 9000
aataccgaat ggcagagaag cactgaaaa aatgttcaac atccttaatc atcagggaaa 9060
tgcaaatcaa aacaaccctg agattccacc tcacaccagt cagaatggct aagatcaaaa 9120
atttaggtga aagcagatgt tggcgtggat gtggagaaag aggaacactc ctccattgtt 9180
ggtgggagtg caggcttgta caaccactct ggaaatcagt ctggcggttc ctcaaaaaat 9240
tgacatagt actaccggag gatccagcaa tacctctcct gggcatatat ccagaagaag 9300
cccaactgg taagaaggac acatgctcca ctatgttcat agcagcctta ttataatag 9360
ccagaaactg gaaagaacct agatgccct caacagagga atggatacag aaaatgtggt 9420
acatctacac aatggagtac tactcagcta ttaaaaagaa tgaatttatg aaattcctag 9480
ccaaatggat ggacctggag ggcatcatcc tgagttaggt aacacattca caaagaaact 9540
cacacaatat gtactcactg ataagtggat actagcccca aacctaggat acccaagata 9600
taagatataa tttgctaaac acataaaaact caagaagaat gaagactgaa gtgtggacac 9660
tctgcccctc cttagatttg ggaacaaaac acccatggaa ggagttacag agacaaagtt 9720
tgagctgag atgaaaggat ggacctgta gagactgcca tatccaggga tccaccccat 9780
aatcagcatc caaacgctga caccattgca tacactagca agattttatc gaaaggacct 9840
agatgtagct gtctcttggt agactatgcc ggggcctagc aaacacagaa gtggatgctc 9900
acagtcagct aatggatgga tcatagggt cccaatggag gagctagaga aagtagccaa 9960
ggagctaaag ggatctgcaa ccctataggt ggaacaacat tatgaactaa ccagtacccc 10020
ggagctcttg actctagctg catatatatc aaaagatggc ctagtcggcc atcactggaa 10080
agagaggccc attggacttg caaactttat atgcccagc acagggggaa accagggcc 10140
aaaaggggga gtgggtgggt aggggagtg gggtgggtgg atatggggga cttttggtat 10200
agcattggaa atgtaaatga gctaaatacc taataaaaaa tgggaaaaaa agacttatga 10260
attttataag tcaattatgt atcacaatag ttctctgaaa ttattgataa tttctataat 10320
ttttctagtc aaattttggg aacattgggt aaaagtaat atgatcttca attgaaaata 10380
attttactta ttattttct atttgtatcc cttctcttgc cttattgctc cagctaatac 10440
ttcaatcaca ttatggataa gcagtaggga tagtgagcat tcctttccca ttttgatttt 10500
aatggtgctt attaattgtt tttattaatt taggaagata ttggccatag ttttgacata 10560
cataaccttt attatgttgg aatatatttc ctacagtcct acttgttctt tggtttttat 10620
taaaaagaca tgttgaggcc atcatgggcg cgaactcagt gggccctagc acaccagga 10680

```

```

tcttggaaatc actggtgagt ggaacgcaac atctgttcca aaaaaccag aggggtcttgt 10740
gccagcagga acaaggacaa aggaaacctg ctcaaccagc tgctgggggtt tgttcccatt 10800
ggcgccagcc ccatctgac ttggacgcat actcagcagg ccatagcaca cccagtatct 10860
tggtgattact aacaccagtc tgctcaggag agcacataag cagcagaagc aacagagctt 10920
cttggacagg gtcccttcgg gccttcattc tcagccagga ggcagagctg agaccagac 10980
ccctgggtac cttccccatc agaggagagt tggcctacgg ggagtactct gacctcagaa 11040
ttcaggaggt gaatctgggc tgcagaattc tgtgcacctt tcctgcaaga ggaaagcttg 11100
cctgcagaga gtgctctgac cactgggatt caggaaagt agtctctcag gagtgtctgac 11160
agaggctaaa gaatcacagg aggaacaagc tccagacaga gatagctaca acatctaaca 11220
caagagatta ccagttggtg aaagaaaaac ctaagaatct taataacagg agccaagacc 11280
actcagcatc atcagaaccc agtacacca ccacagtgtg ttttggatat cccaacacac 11340
ctgaaaagca agactctcat ttaaaatcat atctcatgat ggtggtagaa aattttaaga 11400
atggcattaa taactcactt aaagaaatat aggagaacac tgctaaacag gtaaaaaccc 11460
ttaagagga aggacaaaaa cccctcaagg aattacagga gaacactgct aaacaggtag 11520
aagcccttaa agaggaaaca caaaaatccc tcaaggaatt acaggagaac atggctaaac 11580
aggtagaagt ccttaaagaa ctacaggcaa aactgctaa acaggtagaa gtccttaaag 11640
aagaaacaca aaaatcccctt aaagaattac aggaaaacac aaccaaagag gggatggaat 11700
tgaacaaagc catccaagat ataaaaatgg aagtagaagc aatgaagaaa acccaaaggg 11760
aaacaactct ggagatagaa accctaggaa agaaatcagg aagcatagat gtgaacatca 11820
gcaacagaat acaagagatg gaagagagaa tctcagggtc agaagattcc atacggaaga 11880
tggaacacaac aatcaaagaa aatgcaaaat gcaaaaagat cttaactcaa aacatccagg 11940
aaatccagga caaaatgaga agaccacacc tatggataag aggagtagat gagaatgaag 12000
attttcaact taaagggcca gcaaatatct tcaacaaaat tatagaagaa aacttcccaa 12060
acctaaagaa tgacatgccc atgaacatac aagaagccta cagaactcca aatagactga 12120
accagaaaat aaattcctcc caacacataa taattagaac aacaaatgca ctaaataaag 12180
agagaatatt aaaagcagta agggaaaaag gacaagtaac atataattgc aggcctatta 12240
gaattactcc agacttctta caagagacta tgaaggctag aagatcctgg acagatgtta 12300
cacagacacc aagagaacac aaatgccagc caaggctaat ataaccagca aaactctcaa 12360
ttaccataca tagagaaaca aaggattcca tgacaaaacc aaattcacac aatacctttt 12420
cgtgaatcca gtcccttcaa ggataataaa gggaaaacac caaaacaatg atggaaatta 12480
tgccctagaa aaagcaagaa aataaccctt caacaaaact aaaagaagac agccacaaaa 12540
acagaatgcc aactctaaca acaaaaatga caggaagcaa caattacttt tccttaatat 12600
ctcttaatat caatggattc aattcccaa taaaaagaca tagactaaca gactggctac 12660
ataaacagga ccaacatttt gctgcttaca ggaaacccac ctcatggaaa aagacagaca 12720
ctacctcaga gtgaaaggct ggaaaacaat tttccaagca aatggtccaa agaacaagc 12780
tggtatcc attttaatat ctaaaaaaa tcaacttcca acccaaagt atcaaaaaag 12840
tcaaggaggg gcacttcata tgcattaaag gtaaaatctt ccaagatgaa ctctcaattt 12900
tgaatatcta tgcctcaaat gcaaggcat ccacattcat taaacaatag tatagtaaag 12960
ctcaaaacac atattgcacc tcatacaata atattgggag acttcaacac ccaactgtca 13020

```

tcaatggaca gatcctggaa acagaatcta aacagagaca cattgaacct agcagaagtt 13080
 aggaacaacaa aggatattaac agatatctac agaataatatt atcttaaaac aaaagtatat 13140
 accttcttct cagcacctca tggtagcttc tccaaaactg accatataat tggtcacaaa 13200
 acaggcctca acagatgtaa aactattgag attatcccat gcatcctatc agatcaccag 13260
 ggactaaggc tgatcttcaa taaaaataat aataaatatt agaaagtcaa cattcacgtg 13320
 gaagctgaac aacactctac tcaatgatat cttagatcagg gaagaaataa agaaagaaat 13380
 taaagacttt ttagagttaa atgaaaatga agccacaaca tacccaaact tatgtgacac 13440
 aatgaaagca ttcgtaagag gaaaactcat agccctgagt gcctccaaaa agaaactaga 13500
 gagaatcata cactaacagc ttgacaacac acctaaaagt tctagaacaa aaggaagcaa 13560
 attcacccaa gaggagtaga cagcaagaaa taatcacact cagggttgaa atcaaccaag 13620
 tggaaacaaa aagaactggt cagagaatca accaaaccag gagctgggtc tttgagaata 13680
 tcaacaagat agataaaccc ttagccagac taactaacgg tcacaggagc agtatcctaa 13740
 tgaacaaaat cagaaatgaa aagtacccaa ggagctaaga ggttcggcaa ctctatagga 13800
 ggatcaacaa tatgaagtaa ccactacccc cacagaactg agtctctagg tgtatatgta 13860
 gcagaggatg gcctagtcgg caatcaacag gaggagaggc ccttggaag attatatgct 13920
 ccagtatagg ggggtggtta catgtagaga ttccacctca gaccagtcag aatggctaag 13980
 atcaaaaact caggtagacag cagatgctgg catggatgtg gagaaagagg aacactcttc 14040
 cattgctggt gggattgcaa gcttgtaaa acactttgga aatcagttta gcggttcac 14100
 agttaattgc acatagtact accggaggat tcagcaatac ctttctctgt cattggagaa 14160
 aacagaaaac tctgagatgg aagctctgct gctggctctt gtgtttgctt ggatttgctt 14220
 tagaagtggg tcgaatggac agtcaatga aaccaggta tcatgaaata ataagtataa 14280
 tatataaaaa attcttattt cattattcat ttatctcaa tgctgagcaa cacctcaata 14340
 tcatttacta aatatattat tactagagaa atcactcatt caggagcaa gtcaggggaa 14400
 atgcaacact ctaaatagaa tatgatttaa tatttagttt catatgactt aatatttaat 14460
 atttttattt tagacatttt acatttagac ttccacacac acatatatat gtatgtatgc 14520
 atatatatat atgtatatgt atataaacag catgcaaact gcaattacaa acattaaaat 14580
 ataccagata aaatgttagc ctatttatat gccattgta gtattatgat ttcaaaataa 14640
 aataggatat aattacatgt ctcatatta atcactcatg taaaaataat attaaatgtc 14700
 agcatctcgt caccgtgtc tatttatecc tctgttttcc tcaaagagat ttatataaat 14760
 gtcagattct gtaaaccgtt gggtcacact catgtctgca ttgaaaacaa atattattta 14820
 ctgtcaattt tataattttct ctttctatt tagagcagat tttaggatgat aaaaccaga 14880
 gaccaaatga aatattttgt tttctgtgat atttgttaac tcagtcttaa atatgtcaaa 14940
 agtctttcac cgttatgctt taaatgtaga tttggacaat tgtgtcacct tttgtttgta 15000
 cacttcaggg aacagaaaaat ttactctgta tttaggaatt gtattattga ttgtatgtca 15060
 cactatacaa taaatggaat atgttcaatt gcatttagta atttttattt ttttctctgc 15120
 aatacatatt gattgtatc attcctctca actctcagat ctccccccac ctccctacct 15180
 acacaaattc atgttctttc tctaacaaaa atatggaata taagtttttt ttgtttttta 15240
 tttttttttt tttttgagac agggtttctc tgtgtagccc tagctgtcct ggaactcaat 15300
 ctatagacca gactggcctc gaactcagaa attcacctgc ctctgcctgc caagtgtctg 15360

gattaaaggc atgtgccacc actgcccagc tagaatataa gttttttttt aaagattttt 15420
 ttattttatta tatgtaagta cactgtagct gtcttcagac actccagaag agggagccag 15480
 atcttggttac agatgggtgt gagccacat gtgggttgctg ggatttgaac tccggacctt 15540
 cggaagagca gtcgggtgct cttaccact gagccatctc accagcccta gaatataagt 15600
 ttttaaggagc agaattgtat acttctcatt aaaaatcaaa aatttcccct ctcaagctaa 15660
 agtattttgtt ggagatgaaa gaaaacatcc atttattttc ctaatggcat cttcattctc 15720
 agatctcagg tgattggtac accattgcca tagcagccac agatcttgat gtgatcacccg 15780
 atgatggatt gttgaaactg tttttccgtc atcttgagtgt tactgaacaa tgcaaagaaa 15840
 tcatcctgac attctatggt gagtaagcta accttgctgc aatctaaagg ttcagacatt 15900
 ttgatattgat aggaggtatt gacacatttc ccagactgac agtttcatga cactgtcact 15960
 taccacaata tatacataat tccaaaatag aaaataatgc tgaggtattg ttccacattt 16020
 caaataaaaat acatttaata tgaatattta tgaatggtaa tataaacaat attaataatta 16080
 ctaaaatatt taatatttat aatgtatgtt tcctatacat ttaaattatt taaaacagca 16140
 tgcataattat aatgacaaat gatattcgggt atactggata gaatgtatgt catattgtat 16200
 atatgattac aatataaatt atgacttaca tttatatatg attacaatat aaaatgagtt 16260
 gtatactaca tgtatattaa aatgaacatg ttatgtgtgt acttacaata ttgtatttta 16320
 tataatatca tatttcacat taatatcaaa ttttgtggct ctatactaca gaaaatatca 16380
 ggctagaaaa aattgctcag tgaataaagt acttttaaat ttattttataa catttgtgtta 16440
 ttttatgata acatacacat gtcactatgt aaaaattatt atattttatat gtcatatatc 16500
 atactttata ttttaattat acctatataat tattgtttgt tgttaaagat ttgtgtttta 16560
 tggtatccct gtttgtgtga aagtgtggat ctctgcatct atatgtgttt cttgtgcttt 16620
 ttctttgtct cttgtgtttt ttttttttct gtttctttgc tttgccctca tctggtttgc 16680
 ttttatattat ttatttcttg tctttagtat gcattctcat tttctaataa aagaaagtgt 16740
 gagaatttgg atgggtggaa aggttgggag gatattggaga tataggaagg gaaaccataa 16800
 tcagaacata gtatatggaa atattctttt aattaataaa acgatgggtt ttagttatat 16860
 caagtgtctg gaaattagtt ttaaatagtt tttcatagtt ttaattgtta attccagtca 16920
 tagaagtggg aagtatttca gatggaaaaa tagcatttgt atcactaagc agcttgtgac 16980
 caagaccatt tcagatcttg tgggtaagac tgtcaatcac ccatagctgg aatggttgac 17040
 aattaatggc tcctggggga ggaataatta tattacttta agaataatag cacttgtggg 17100
 tttacattca tgcacatatg ttcaatgata actggacata attggttact tctttaaaaa 17160
 gaaaggagga aaggagaga gaactctggga tttggaagga ctggactaga tgaagggtga 17220
 tccaagtatg ctcttgcatg tatggaattc tcatatgtac agcagtgact ggaagtatat 17280
 aaacttcaat agcaataaat tcaggacata tagagaaata ggaaagcaga aacagggggc 17340
 tatataagat cacattttat tttatgtgtg tatgggattc taciaaagaaa agttaaagtg 17400
 aaatataaaa gtacttaaaa taaattcata gatcagcata caattaggac tagggtaaat 17460
 aaagatccca tatcccctaa agaaatagaa gcagttatta atagtctccc agccaaaaaa 17520
 agcccaggac cagatgggtt tagtgcagag ttctatcaga cttcaaaga agatctaatt 17580
 ccagttctgc acaaactatt tcacaagata gaagtagaag gtactctacc caactcattt 17640
 tatgaagcca ctattactct gatacctaaa ccacagaaag atccaacaaa gatagagaac 17700

```

ttcagaccaa tttctcttat gaatatcgat gcaaaaatcc ttaataaaat tctcgctaac 17760
cgaatccaag aacacattaa agaaatcatc catcctgacc aagtaggttt tattccaggg 17820
atgcagggat ggtttaatat acgaaaatcc atcaatgtaa tccattatat aaacaaactc 17880
aaagacaaaa accacatgat catctcgta gatgcagaaa aagcatttga caagatccaa 17940
cacccattca tgataaaagt ttggaaaga tcaggaattc aaggcccata cctaaacata 18000
ataaaagcaa tctacagcaa accagtagcc aacatcaaag taaatggaga gaagctggaa 18060
gcaatcccac taaaatcagg gactagacaa gggtgcccac tttctcccta ctttttcaac 18120
atagtacttg aagtattagc cagagcaatt cgacaacaaa aggagatcaa ggggatacaa 18180
attggaaaag aggaagtcaa aataacactt tttgcagatg atatgatagt atatataagt 18240
gaccctaaaa attccaccag agaactccta aacctgataa acagcttcgg tgaagtagct 18300
ggatataaaa ttaactcaaa caagtcaatg gcctttctct acacaaagaa taaacaggct 18360
gagaaagaaa ttagggaaac aacacccttc tcaatagtca caaataatat aaaatatctc 18420
ggcgtgactc taactaagga agtaaaaagt ctgtatgata aaaacttcaa gtctctgaag 18480
aaagaaatta aagaagatct cagaagatgg aaagatctcc catgctcatg gattggcagg 18540
atcaacattg taaaaatggc tatcttgcca aaagcaatct acagattcaa tgcaatcccc 18600
atcaaaattc caactcaatt cttcaacgaa ttagaaggag caatttgcaa attcatctgg 18660
aataacaaaa aacctaggat agcaaaaact cttctcaagg ataaaagaac ctctggtgga 18720
atcaccatgc ctgacctaaa gctttactac agggcaattg tgataaaaac tgcatggtac 18780
tggtatagag acagacaagt agaccaatgg aatagaattg aagaccaga aatgaacca 18840
cacacctatg gtcacttgat cttcgacaag ggagctaaaa ccatccagtg gaagaaagac 18900
agcattttca acaattgggt ctggcacaac tggttggtat catgtagaag aatgcgaatc 18960
gatccatact tatctccttg tactaaggtc aaatctaagt ggatcaagga acttcacata 19020
aaaccagaga cactgaaact tatagaggag aaagtgggga aaagccttga agatatgggt 19080
acaggggaaa aattcctgaa cagaacagca atggcttgct ctgtaagatc gagaattgac 19140
aaatgggacc taatgaaact ccaagtttc tgcaaggcaa aagacaccgt caataagaca 19200
aaaagaccac caacagattg ggaaaggatc ttacctatc ctaaatacaga taggggacta 19260
atatccaaca tatataaaga actcaagaag gtggacttca gaaaatcaaa taacccatt 19320
aaaaaatggg gtcagaact gaacaaagaa ttctacctg aggaataccg aatggcagag 19380
aagcacctga aaaaatgctc aacatcetta atcatcaggg aaatgcaaat caaaacaacc 19440
ctgagattcc acctcacacc agtcagaatg gctaagatca aaaattcagg tgacagcaga 19500
tgctggcgtg gatgtggaga aagaggaaca ctctccatt gttggtggga ttgcaggctt 19560
gtacaaccac tatggaaatc agtctggcgg ttctcagaa aactggatat agtactaccg 19620
gaggatccag caatacctct cctgggcata tatccagaag atgccccaac tggtagaag 19680
gacacatgct ccactatgtt catagcagcc ttatttataa tagccagaag ctggaaggaa 19740
cccagatgcc cctcaacaga ggaatggata cagaaaatgt ggtacatcta cacaatggag 19800
tactactcag ctattaaaaa taatgaattt atgaaattcc tagccaaatg gatggacctg 19860
gagggcatca tcctgagtga ggtaacacat tcacaaagga actcacacaa tatgtactca 19920
ctgataagtg gatattagcc caaaacctaa gataccaag atataagata caatttccta 19980
aacacatgaa actcaagaaa aatgaagact gaagtgtgaa cactatgccc ctcttagaa 20040

```

```

gtgggaacaa aacacccttg gaaggagtta cagagacaaa gtttgagct gagatgaaag 20100
gatggacat gtagacacta gcataatccg ggatccatcc cataatcagc ttccaaatgc 20160
tgacaccatt gcatacacta gcaagattat gctgaaagga ccctgatata gctgtctctt 20220
gtcagagtat gcctgggcct agcaaacata gaagtggatg ctcacagtcg gctattggat 20280
ggatcacatg gcccccaatg aaggagctag agaaagtacc aaagaagcta aagggatctg 20340
caaccctata tgtggaacaa cattatgaac taaccagtac cccggagctc ttgactctag 20400
ctgcatatgc atcaaaaagat ggcctagtcg gccatcactg gaaagagagg ccatttgac 20460
acgcaaactt tatatgcccc agtacagggg aacgccaggg ccataaaagg ggagtgggtg 20520
ggtaggggag aggggggtggg tggctatggg ggacttttgg tatagcattg caaatgtaaa 20580
tgagcgaaat atctaataaa aaatggaaaa aaaaaaagaa agataagatt gcactaaaga 20640
tcattgtgac ttcaatgaat gttggccacc atgtgcaaaa tgggtttaga tgattttaac 20700
taacctaaact ggaagtataa atcaaaaaag ttaatgctga aaaaatttac tcataataaa 20760
cgttatttga ggttagcag cagggaagtt agcatggatt ctgtgtgaag agaaaagaat 20820
gatattgttt attttctgta caataacttg ttctcagtta ataataaatt agagattata 20880
catcaagaag aattctagaa acatgtcatt gaataataca tgtgaaaatg aatctgttct 20940
ccattttata aatataatta gaatctatat gaaggttta atatccatt cttgtcttct 21000
ttcaaagtg tcatattta agatggcact attgaaatct gagtagaaaa aaatggcata 21060
aaatatatca ttacaacca gtaacaacaa agacacatat gaattataga tttcatatat 21120
aactgatttt gtattcctca gatctatatc tgatatgtaa atacaattat ctgctgtac 21180
atttactgtg caggctata tgcccatccc cacctagaat cactgatgtc tatataaatt 21240
tttctgtaat aaatataagt tgaattaaca gaagtcaaat tatgcattag acaatggtag 21300
attcagtggg gtatagtagc acatgccttt aatctcagca cacatgaggc agaggctggt 21360
gtctctgtgt ttgaagccgg cttggtctac agagttccag gatagccagg tctgttaaac 21420
agataaacca tgtcatagaa aaaaagaaag aatgaaagag caaaggaagg aaggagagaa 21480
ggaaggaagg aaggaaggaa ggaaggaagg aaggaaggaa ggaaggaagg aaggaaggaa 21540
ggaaggagaa gaaggaagga aggaaggaag gaaggaagga aggaaggaag gaaggaagga 21600
aggaaggaag gagaaaaaca aacaataat gatgaattca gtgacctaga aacagaagtg 21660
tttatagaag atagttagat agatagatag atagatagat agatagatag atagatagat 21720
agatagatag atatagatgc tttaaaaaaa agactacaca tatcaaagta atctgcagct 21780
actaccaggt aaagtatat gatatcgttg cttgaacct tgcacataaa caatcctcag 21840
tgacaaaagtc aactgttgtg gtttctatgg cacagtgagt cagtgtccag tgatctgaga 21900
aggaagatgt tcgttatgcc catcattaca ctattcaggt cacacaggac catgataagg 21960
gatatacata tctgtctctt tttgttttag ggtagatgaa gaatgtgaaa agtttgaagc 22020
taacgcacag acctaccaat cagatgggtt tacttttacc tgtgagtata tgtgatcttt 22080
ctggaatatt taaattcctt gttactggta tcatcccata gcctgagcct ggaagaattt 22140
cttcttgag ctttccacca ggccttacac ctctcactgg gtctgtgaag aagtcaggat 22200
ctcatcacac atgttacatt aaattgccaa aataaatgaa caaaactctc aggtcttatt 22260
gtgagatgtt cacatataaa acaactgaga atatatttta tgtagagtaa tttaatgtctc 22320
acttacataa taattattgc gactattcaa taaatagtca agttggtcaa taaaaataa 22380

```

```

atatgtaggg caagagtgat ggtcagcagt taaggagagt tgctgctctt ccaaaatttc 22440
cctattctgg tcacagtagt cacatttgat ggtgcacaac attctgtaac tctgggtttt 22500
ggagatccaa tgttttctac tggactcgaa gaacaccctg gtcacatgca aaagaaaaac 22560
aaaaacaaga caaaaaacac cacaagtgca cttttacaca tagatgaaaa taaaatcaat 22620
ttttaaaaaa gataaaatat tcaagtgttt ggaaagacat ttgataaaaa gagtttggca 22680
agtacattat aattagcaga catcagaagt taataatggc agtgattaaa atgacagatt 22740
gaaatattca taccaaagtg tacttaattt aaaattcaat cccaatgaga agaaaactgt 22800
atagggtttt gtttgtaata attggcaata atttgcaata atcagttttc taaaatggaa 22860
tgaccaagtg cttaagtaac ttactttgta gaaaagtgtg caatatatta ttctcatctc 22920
agtttgaaaa atatctattt ttaacttaaa tgcaactgag gggattatta atgaatcagt 22980
gacactgaag aaggaagggg acgcatttct ggggtccttg aattgagcct gctaaaatga 23040
aatggaatag tgtaaaaatg tttgaattct gacatctacc tttttacact acagatccag 23100
gtgagtgtta cttaggatt tcatatatat caagtgaag tatgatactt attagttact 23160
gtttgaagga tggtttgcac tggaaatccg cactcatttt gcttggtgag tatcatgact 23220
ccttcttatt atgatgacga ttattattat tactctttct tatgcctgca tatgggtctg 23280
cataccacat gtgtgcttgg tgtacacaga caccagaaga gagcatcaga taccctgcaa 23340
ctggaatgac aaatggttgt gagccaccac gtgagtgatg ggaattgagc ccagtttccc 23400
tgaagagcag ccagtgtctt taacctcagg accatttttc cagccccacc tagatctttt 23460
tctataatac agaacatggc tacattatgt ctgcttttga tttaaaagaa aaatttatgc 23520
ataggttgtt tatataaaat gtatttattc atagatgtgt ctacatagga gattcaatat 23580
tccccctgac tgaatcaagg atgcaaaaac attttatcaa aaataaagat ttatgtccac 23640
cagggacttc catcagaaag atttccttaa attggacaca tacaacgtgg tgatacaaga 23700
cattccatgg tgccttatt gaagtatcag agttcactca ttggtagatg gcttagggaa 23760
cctcataatc caaaaataaa aattttagtt tagatgcttt aaaggaaaat catgttaggt 23820
ataagaaata tgaaggggga ggattttttt attgtcttgt ttctggaaag ttgacattat 23880
ttactcccc ctcattccat caggggtctg gagtaggcag gaatggatat gatgataata 23940
atataggttg agtaggaaga aaaagtcatt attttggaac cttctgaaa tcttaaatgc 24000
aactaacttg aattccaaag tggttatgtt tagagaatac tactaccag ggagctatta 24060
gaggaggaca gggaatgtgc tcaagtcaca ggagcatatc ctatgtgctt agaatgtatt 24120
caattgtgaa ctcaataggt ttacaactgt gaatgatgtt tttgtgaact caataggttt 24180
acaactgtga atgatgaaat gatgttccat gtttttagtc cttgtcaagt caccatgaaa 24240
gacagaggtg ggagtgagga gaggattgga cacacagtaa gataacatgg aggatacatt 24300
ctactctgaa gaacattcca catgattctc ttcatttttt ccacacaatg aagggaagg 24360
aaatggtgtg agtgaaattt acagatgagt gtactaggag gatacttcca aaggagaatg 24420
taagatatgt gcttgagaaa ggtaataagg caatgacat agaggatacc ctagatgtcc 24480
cctgagactt tatatgaaat aaaaaattta aaacatatt atatttgatt caaatttact 24540
actcaacaat ttttgaagtt ataatcetta aaacaatgtt gtttcccacc ctgttttgca 24600
gatatttgtc ctaaaataagg acatgcatac cttgggtgag tagaaacata atgacagatc 24660
ccattcttac taaaaatcaa tgctttttta tttttatcgc ttcttggcct tttggctgag 24720

```

```

atcaagtgtgta ttttttat tttt gttactttta tgaaaaaaaa aatcgaatggg tggatgtgat 24780
gtgggtgcag tgctgttga aaacagaaga tggcaccaga tcccacagac tcacatggag 24840
ctgagacata agtcttgtgc aagatcagag atgactcttt ttttttctt tccatttttt 24900
attaggtatt tagctcattt acatttccaa tgctatacca aaagtcccc ataccaccc 24960
acccccactc ccctaccgc ccaactcccc tttttggccc tggcgttccc ctgttctggg 25020
gcatataaag tttgtgtgc caatgggcat ctctttccag tgatggccga ctaggccatc 25080
ttttgataca tatgcagcta gagtcaagag ctccggggta ctggttagtt cataatgttg 25140
atccacctat aggggtgcag atcccttag ctcttgggt actttctcta gctcctccat 25200
tgggagccct gtgateccat cattagctga ctgtgggcat ccaacttctgt gtttgctagg 25260
ccccggcata gtctcacaag agacagctac atctgggtcc tttcgataaa atcttgctag 25320
tgtatgcaat ggtgtcagcg tttggatgct gattatgggg tggatccctg gataaggcag 25380
tctctacatg gtccatcctt tcatctcage tccaaacttt gtctctgtaa ctcttccaa 25440
gggtgttttg ttccatttc taaggaggg catagtgtcc acacttcagt cttcattctt 25500
cttgagtttc atgtgttag gaaattgtat cttatatctt gggatcccta ggttttgggc 25560
taatatccac ttatcagtga gtacatattg tgtgagttcc tttgtgaatg tgttacctca 25620
ctcaggatga tgccctccag gtccatccat ttggctagga atttcataaa ttcattcttt 25680
ttaatagctg agtagtactc cattgtgtag atgtaccaca ttttctgtat ccattcctct 25740
gttgaggggc atctgggttc tttccagctt ctggctatta taaataaggc tgctatgaac 25800
atagtggagc atgtgtcctt cttaccgggt gggacatctt ctggatata gccaggaga 25860
ggtattgctg gatcctccag tagtactatg tccaattttc tgaggaaatcg ccagacggat 25920
ttccagagtg gttgtacaag cctgcaatcc caccaacaat ggaggagtgt tctctttct 25980
ccacatcctc gccagcatct gctgtcacct gaatttttga tcttagacat tctgactggt 26040
gtgaggtgga atctcagggt tgttttgatt tgcatttccc tgatgattaa ggatgttgaa 26100
cattttttca ggtgcttctc tgccattcgg tattcctcag gtgagaattc tttgttcagt 26160
tctgagcccc attttttaat ggggttattt gattttctga agtctacctt cttgagttct 26220
ttatatatgt tggatattag tcccctatct gatttaggat aggtaaagat ctttcccaa 26280
tctgttggtg gtctctttgt cttattgacg gtgtctttt cttgcagaa actttggagt 26340
ttcattaggt cccatttgc aattctcgat cttacagcac aagccattgc tgttctgttc 26400
aggaattttt cccctgtgcc catatcttca aggettttcc ccaactttct ctctataagt 26460
ttcagtgtct ctggttttat gtgaagttct ttgateccat tagatttgac cttagtacaa 26520
ggagataagt atggatcgat tcgcattctt cgactcttat ccattgagtc tatcagccat 26580
catactatcc ttctctactt aatttgetcc cttgagatct caagataaag agtcaatatt 26640
ttaatttttg aaacaaagaa atccgtgaga tatgaaataa tgaagtttag cgtgaattct 26700
gggcagccaa atagtgtgca gcttttggtg atgcacatat ttatgcattt ttctctgtgg 26760
tataaatctc agtatttacc ttggatata gaaatctcag gatttgttca gaggtttaca 26820
aaattaatat aattttatga aattcttcaa aataatatcc atacatggca tccatgtaca 26880
cagatggaat cccatgaagc aactttgtca tggacaaagg tccactttgt aatggatagg 26940
gtctactaag atccaacaca actcagacac tgaatcaata cagaaaacaa aaatttattg 27000
taatcaaact gctactgatc aatcagcaac attgaacaga cttgggagct gaactatagt 27060

```

```

ccccagccaa aatgtttaca gggctttagg cctgaaagac acaaatatct atgtcaagtc 27120
acagttaaat ttttccatca attgagattc aggtataggg gacttttcta gaaacatttc 27180
tttgtggtag atttatcctg tcctcattgg ttagtttact taactgtggc agagtgactt 27240
gccagcatt catgtctcaa cttgtcaacc aagggtgctgg tcaccctggg agatcttaga 27300
aacttaaact ttgtttgaac cctattcaaa atggaagatt tattcaaaat ggctctttat 27360
tacaaatttc cctctgatac attgctcatc aaaggaatca attataaagt tatttaaatgg 27420
catataatat ttatatatag aactgagttt cataatgaca ttctttatac atgtatatca 27480
tacattttta tcatatttcc cccctttatc tacctcttat tctaacctgt tgctttcctc 27540
atcccaacag ccgagtcttc attctacttt cacacacaca cacacacaca cacacacaca 27600
catatatgtg tgtgtatgtg tgtatgcata tatgtattgt atataaattt tattatagag 27660
tatagagcat attatatatt acattcacta tattatacat tgtcttgtgc attatattat 27720
atatatatga actttctggg gacacaatca atttaattag gactgcttgc ataagcatgt 27780
gtacagactt atttacagga gcatggacac aacatcagca tctagatcac taaaaatcat 27840
ctcaggetcc ccctaacaac catgacttgc ctgtaaagtc tcagaaatgt ttggggcctt 27900
gtgagtgagt ctctgaacc acccagcaac ttttattatc tataatccct cagaagaagg 27960
gggaccacat gaaccctgcc aattccacca atttggttca ggtcttcctt cattgaaaac 28020
ttaaggacat tatgctacta agaagaactc aactaaatta aacattttca ttctcatctc 28080
cacagatatt ataaagaata ttgaaattg taacttctca atggcaattg attcatctct 28140
gtgaagtcta attattctgc tccccatcct atgaagacct aagtcccaat ttattgcttc 28200
ttttctttcc tgcatttacc ccttgatga cgttactaac ttactgatta aattgatact 28260
gtatgcatac acacatatca gaagcatgct cttaaagttt ccaatgctta aaaatgtttc 28320
actatgcaca actcttaaaa aatatactca tctattatca agcaggataa atgtacttaa 28380
aagaatagtt aaagagttgt acagatgtct tagtcggtgc tcactaaaac ctgtctattg 28440
cctctagctt ctggggtagg atgtgtctca tgagcactcc cctacctagc tataattgca 28500
tggtcaggcc tcgcacacat aaccacatct gctttgagtt catgagcaca catcaccaca 28560
tctgctttga attcatatca atgggcactg cagaaattaa aaaaaaaaaa ccattaggtc 28620
ttacttcaaa agcctgtact tcacaaaatt ggaaaatcta aatgaaatgg atgattttct 28680
atatacatat cacttaccaa agttaaatca aggtcaggta aacaacttaa aaagtcctat 28740
aactcctaag taaatagaca aagtcattaa aatattccca accaaaaaaa caaaaagccc 28800
agggccagat tgttttagtg cagaattcta ccagactttc aaacaagagc taataccaat 28860
atgcctcaaa ctattccaca aaaataggaa cataaggaac actacctaatt cattgtatg 28920
aggccaaaat caccctgata cctaaaccac acaaagactc acaaacaaa agactctcag 28980
accaatttcc ctatgaaca ttgatgcaaa aacactcaat aaaatattag caaactgaat 29040
cagagaaagc atcaaaaaca tcattcaaca tgatcaagta acattcatte aaagggttgt 29100
agggattttt caatgtatga aaataaatca acataattca caatataaac aaactaaaaa 29160
aaaaaactaa tcatctcatt atgtactaaa aaaggetttg acaaaatcca atctctttca 29220
tgttaaaagc cttggagaga tcaggatacg agcacatatc taaatacaat aaaagcaatg 29280
tacagcaagc caatagtcaa agtcaaatag agaaaaactt aaagcaattt tactaaaatc 29340
agggacaaga cacagctgac cactctctcc acatatattc aacattgtac ttgaacttct 29400

```

```

agctagagaa ataggaaaat taaaacagat caaggggata caaattggaa aggaagaagt 29460
caaagtatca ctctttacag atggtgtgat agtactcata agtgaacca agaattatac 29520
cagagaactc ctacatctga taaacacttt cagcaaagcg gctggataca aaattaactc 29580
aaagaaatcg gtagccctct ttatatacaa ttataagtgg gtcgagaaaag aagttaggaa 29640
gaaaatacct ttcacaatag ccacaaataa tataaaatag ctaatagtaa ttctaacc aa 29700
gcaggtgaaa gatctgtatg acaagaat t caagtatctg aaaaagaaat taaagaagat 29760
atcagaagct agatcccaca tgcttatgga tcaattgaac taacaatgtg aaaattgcat 29820
ctctccctgc ccttatggat catcagacaa tactgggtcca tgtgggtcaaa gggaacagag 29880
atgagagacg agagggttaac atgccctgtg agtacataca gtaaataaga tacatcagaa 29940
ccagatgcag ggaggcagac aaactttacc tgggggtgatt caagaactat ataatttggg 30000
gatgctagaa aaatccaaga tggccagagg tcattgactg aagacttagg gtactgaaat 30060
aattcactag catgggaaaag tatttcacga atctcagatg ctagctgaat gagttcttat 30120
caagagaaat aaagggatat ggactccaca ggaaaaccaa cagagtcaac tgacacagac 30180
ccttgagggc tcccagagac tgaactacca accaaagagt aagcatgagc tgtacctatg 30240
accctacaca catatgtagc agatgttcaa catggtcttt atgtaggtct cccaacaact 30300
agagtgggga ttgtccttga ttctgttgcc tgcttgtgga tcctgtttcc ctgagtaggc 30360
caccttgtct gtctcagtg ggagaggatc cacctagtcc tgcagtaact tgatgtacca 30420
gagtaagggtg atacccaaag aacacacacc cttctcaga ggagaaacgg aaggggaggg 30480
gagctgtgtg agggtgagac taggaagaga gagaggctga gattgggata taaagtgaat 30540
aaataaatta acagaaaaat aaattggaga ggaaaaagtc aaagtattgc tagatggttg 30600
gatagtatgc ataattctta caaaaattct accagggaac tcctacagtt gataaacatc 30660
cttcagcaat gtagctggat acaaaattaa ctaaaaaaaaa tcagtatctt ttctttatac 30720
aaatttgaaa tgggctgaga aagaattggg gagacaatac actttacaat agccacaact 30780
aatataagat aacttggtgt aattctaacc aagcaagtgg aagacccta tgacaagaac 30840
ttcaagtctc tgaagaaggg aaatgtggta catttattaa atgggatact cctccagaag 30900
gggaaataac atagacttgg gaaatgtttt ggaatagtag gacataggac tgagttagcc 30960
agaggggtca aggacaccac aataagactc acacggtcaa ctaactcggg cctatggtag 31020
ctcacagaga ctaaatacacc aaccaaagag catgcatatg ctggaagtag gccccctac 31080
acatttgag cagatgtata gcttggtctt catgtaggtc ccctaggaat tggagcaagg 31140
attgtctttg actctgttgc ctgcctttga aaccgtcct cttggctggc cttccttgaa 31200
gggctacact gggaatggat gcaactaagta cttctgcaac ttgaagcacc aggactggtt 31260
gaggagaaaag gatgaggtaa tgggggaagg ggtttgtgag ggtagtacta ggagaagggg 31320
aggttgtaat tggggtgtaa agtaaataaa tagatagata gatgatagat agatgataga 31380
tagatagata gatagataga tagatgatag ataggtagat agatagatag atagatagat 31440
agatagatag atagatagat agatataaga aagaaaattc aaatactaga atccatattg 31500
tgatctaacc atgtaaaatt ctttcttcct acttgatatt ataaggtatt ctttacc aa 31560
agaaaaatat tatttcaagt ctggtttcta ataccatgaa atataaaatg tgattgcagc 31620
attgggaagg taaatcaaat ttcatacagg agaagacatt tttcctgtct gatacttgaa 31680
atagtgtttt catgatattt ttcatagaatt tcaactgtgc aaagatatat ttactcttgt 31740

```

```

gtttttaaac attatcataa tgaataaagg accttggttt tcaaggcata tacacctcct 31800
tcatggagta tataccactg caatccttag gcatttcaca caatgtaaca aatacaatat 31860
tggcccttaa ttaactacac aagcatgaag catcagggat gaattaatct caaatacaca 31920
cccagtatcc catcaaaatt atttggacaa taacacatca aacttatttc cctaaagggt 31980
tacttttttt ctaactccat aagctcatcc atcagtcatt gttttaatat acccgatatt 32040
aagtcaatat cttaaatgta atgagatata aatttttttt ctgacaaaca agaagggaag 32100
gattatggat ttctattttg ttgctcataa ggaaacatgg gtgacataat gtgctagttg 32160
agccattcaa acaacatgga cttcagattt tgattttcgc actgagtgga tgatacaaca 32220
agaggtaaaa ttggaagatg cactacetaa aacaaagaga tacaaccaa atctttaatg 32280
gttttttagac acatctttga ccatgaaaat atggcaaagg aaagttgtct ttaaatgtct 32340
tcattattat ctgaactcaa aaattaattc acatcacagt gttcacactg tgaacactaa 32400
gtcacacata gtctcatctt gtcttcagga gacttttctg ggaattatca ttattttgat 32460
aggggaattt agaagagata gttgggtttt acaaagtgc agacaactga ccaacagatt 32520
ctctatgctg ggttccaaat gacacttctt ccatttcttg ccatcaaatg cagtaagtga 32580
aactaatccc actaaagaaa tgtaaagact atgtaaattg aacaagaaat aaaaaactcc 32640
cataaaatta ttataaatat ctataaagta agtaatagca ttctttttgt ataaaataag 32700
ctgagaccag agaggtttat agattcttga ttccaacacc tgatttaca aaaactgcat 32760
atatatatgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtatacat atatatatat 32820
atacatatac atatatatat acatatatat ataaaacaaa atcccttaaa gcattgatga 32880
acttcaataa ccttttctct atttgtacat ttaattttt ctcttatttt ttaaaagtag 32940
aacataattt cttttttctt tagttttaag aatggtgaca ataaattaca taataataaa 33000
gagataagaa agaaaacaca tcagtcagca caatttgagt ttgcttacta agactgtttc 33060
tctcaacaga tgcagagtcc catagcaaaa ccttaggcag agcttgggga gtcctgcaga 33120
ggatggggag gaaggatcac ctaaccagag gagtcaggga caccaaaagg acaaggctca 33180
cagaatgaac tgacatggag gctgtcagag atcaggggag cagtaggggt ctaataggcc 33240
ttgggtgtat atgttatggc tgagtgtagc ttatgttctt ctagggttcc taacaatgga 33300
agtaggacct atctctgact cttttgcctt cttatgggat cttttcactc cttttgggtt 33360
gcctagcaga gccttgacgt gatggtatat gcctgatctt attgtaactt gttataccgt 33420
gtttggttta aattgctggg aggctgctg tttttggaga ggacatggaa gggatggata 33480
tatgaaagag gggaggtaag agagacacag agggaagggg aggaaggaga aactgcagct 33540
aggatgtaat atataacaga agagttaatt aattaattaa attttaaaaa agcctgtggt 33600
ggttttaata agctcagccc aggcagtggc actattagga ggtgtggcct tgttgggtga 33660
ggtgaggctt ccttggaaat agtgtgtcac tgtgggggtg agctttgaga ctcttctcct 33720
agctgcttga aaacagtctg ctcttgatt ctttcaatg aggatttagg gctctcagct 33780
cctccagcac catgtcttcc tggatgtgc catgttccc acctggatga taatggactg 33840
aatctctgaa cctgtaagcc agcccaaat aaatattgtg ctctctaaaa tttgacttgg 33900
tcatcatgtc tcttcatagc aatggaaacc ctaactaaaa cagagcctct ctggctctta 33960
agccatgctg gctataaagc ctacatat acatgacata ttattataga aactttgtat 34020
cacaccctga atatcatatt tacaatattg taggtaatat tttctctct aattatgaca 34080

```

```

tgtaaataaa ttacgtaatt atactcaaaa gaattttcttc tgacattatt gactacctta 34140
ggttttgttg catttttatg tgttttattat tttatttgggt ttgttttgaa acacattcaa 34200
actatgtagg caacgggtat cctcaaaactc aatatataga tcagggggggc ctcaaaactca 34260
cagaaaacaa tatgactctg ctccccaaga cacagaatta acagtatgga tcaccatgct 34320
caattaatca cagggttaatg tatttttagtt ttttaattatg tagatattca ggtatctgca 34380
tatgagcaat gttaccaggt gagttcagta cctgacgagg gcagaagagg gagcagattc 34440
ctctggacct aaaattacac atgattgtgc attgcaatat agttgctagg aactgaaccc 34500
aggctcgaag gaaagctagg actctgacct agtgagtcac cctaagccag attatttttt 34560
aataggtaca gtgcacattt tctttgttgt gtatgatggc tagaatatgc ttgccctatg 34620
gaaattggca gtatgaggag gtgtgtcaat gttggggtag gtgtgacctt gttggaacat 34680
gtgtgacact gtgtgagtggt gttttgaggt tcctatgccc aagctctgcc aaatgaggaa 34740
gagagcctcc tgctggctgc ctgcagaaga aagactctcc ttgctgcctt tggatcatga 34800
tgtagaactc tcagctcctt ccccagcacc atgtctgctt gcagactgct atgcttcctg 34860
ccatgatgat aatcatgaac ctctgaacct gtaaggtggc cacaatgaaa tgtttgcctt 34920
taatagagtt gccttggcca tgggtgtctt tcacaaatat ataccctcta attcagacat 34980
tgtgtattac atcacattga ttgaagacag aatgtgtaca tgaaaaatca atttatttta 35040
tcaacaaaag aatcagtacc atggtaggag tatgggaaac aaatccatga agcagagatt 35100
ctggcttcat aggaaagatg aaaagaaaaa ctaagaaaag gatgagctct cttcattgtc 35160
atgattctga tttcatgaaa gaggtgatgt gggaaatact tctgatcttg ctgtcatctg 35220
tgaagcttca aaagtaaaaa acaagacaaa caaatgaaac agtaagatgt gcatgagctg 35280
gtgcttctga catgagcttt ctgagattgt aaatgaaaaa caaaaattaa tcgacacgga 35340
atatggtgaa aggtttgatt ttaaaaaatga cacatgtcac aggtttagac ctaggtttgt 35400
tcttgggtga ctcccataac tctcttcagg catttaaaact gagagttttt ggtctaaatg 35460
taatctacca taacacctat gtgcaagggt gtgtctaagg agactttaca aagttcatgt 35520
acatttacag tatttcaca ttcatgtctac actcttggct gtcacaaata tcacttattt 35580
tcaatagtca agtttcatta aattcttacc tattaccttt aagataaaaag aaatcaacac 35640
tttggtagat gagagttgct tattcccatg ttataaatat taacagcaac ataaacgata 35700
gctttgccac cttggattat atatgtaatt agaattataa agagatttcc tctactaaag 35760
gcataactaa tagactaaag aatgaatttt tagcagatta aaatattaac aggctctgct 35820
gccctgttgt actcaccat attgtgtctt tattgggtac aagtgtctgt gagagacaga 35880
aaggaaggaa ataaccacaa acaaaaagaca tagttagagc tccttaatat ctccagtgc 35940
tttaataaat tttaaaaaatc tgatttagac gactgaaatg atgattatcc tggatatctt 36000
cagggtcatt agtttgctgt gtgaagcaca atgttggtac ctgtgggcgc caagtgtggt 36060
atattctcct ttggaatatt gtattccttg accagcttcc caagctctg cttctgtgct 36120
ttgctcaggg tctctccttt tcctacatca cataaagcag aaaggaagaa aaagtgtagc 36180
ttacagtact ggggtggctca gaacagatgg agttataatg ggttggtgta tattgatgca 36240
tggaacatc ttactttgtg ggccctccct caccatca gtctcattct gatcaacct 36300
agatctctaa agtaaaaaaga acacatttaa tgaagctgaa ctatgatagt ccacacccta 36360
atgaataata tcgttatttg tgggtggaatt gttattgttg ttattgcat catcactatt 36420

```

```

aatactccta ctactactat tataattatt cgtactttcc atatgaccgt atattttattt 36480
ccaaaaaggc ctgtacataa tcttggtggt tgaaatactt gaactaaatg tttgtccatg 36540
ctgacttcta ccttacttct gtgtagattc tggagtccgt gccttggata attgataatt 36600
atcaaaaataa gcagtgaaat caggctgaac aggctcatga acctgaatca attacgactc 36660
caacaccacc ccacctcacc acttacccaa cctcactacc agattccagt acccagtacc 36720
cagcctccag tcccctgcct ccaggcccaa gcccccaaat tgcctctgct tcctccattg 36780
ccccctacaa ctttggtaaa caaagcaaga ttgttgggtt tatatatata tatatatata 36840
tatatatata tatatatata tatattatca tgacacaaag caaggctatc tggaaagagg 36900
taacctcaat taagaaagtg ctacctcag actgctctgt gagaaacctt gtagactcat 36960
tttctagatt gacagttgat atggaagtgt ccaccccact gtaggaaact cagcagcaca 37020
gttttctttg ttagtgtttg atggtagggt gcctagacta tgggtagtgc cacctctggg 37080
gagatgggcc tgggtgctaa gagaaagcat gctgaacaag acctggggag caagccagta 37140
agcagcactc ctccatgccc tgtgcatcag ttctgcctt caagttcttg gctgtttggt 37200
acagagacag atgggtcaat aattggaata ggattgaaga ccccaaaata cccccaacac 37260
acacacacat ggacacttga ttgttgacta agaagacact accatatagt agaaaaaaga 37320
gagcatcttc agcaaatcgt gctggcctac ctggtggtct gtatgaagaa gaatacaaat 37380
tgatacatat ttctcacctt gtacaaagca caagtccagg tggatcaaaa tcctccacat 37440
aaaatcatat atactgaatc taatagaaga aaaagtagga aatagcttgg aaggtattgg 37500
cacaggaaaa aattttctga accaatggct cagctctaag atcaacaatt gacaagtgga 37560
acctcataaa actgaaaagt gtcttcaaga caaaggacac tgttagtagg aaaaacagca 37620
acctacagat tgggaaagaa tcttcacaaa ccacacatcc aatagagggc taatatccaa 37680
aacatacaaa gaactcatat attagactcc agaaaaccag acaacctagc caaaaactgg 37740
ggtacaaact aagcaaataa ttcttaacta cggagacttg aatggctgag aagcaatgac 37800
ttctttttga aaatgaactg tgttatagga gcttaagcca aatcaaccct ttcttcccca 37860
agttgctttt ggtcatggtg cttatcatat cgatagaaac cctacaagag ggaccactct 37920
caccagcaac taaaatcaca ttgtctcct gtccgctctc atccacatta acgttgtgaa 37980
agaaaagggc gccatcttcc ttcatataca cttcgaagta atttctacca gagtctgcaa 38040
ttaaaagaga atcagcttag aaatcagtag aatcattgga ggtttcacta ttattttaca 38100
tatgaaatct atgatatttt tatttctttt tcaattattt gacaaatgtc atttacaatg 38160
gtttaaaatt gtaaattgaga attactaagt ggtagagaca ctcttgcat aattaaaata 38220
tttttttgaa tttaaaaaga atgtccataa ttagacggga atgctggcac acgcctttga 38280
tcccagcact tgggaggcag aggcaggtag atttctgagt tcaaggccag cctggtctac 38340
aaagtgggtt ttaggacagc cagggttata tagagaaacc ctgtctcaaa aatgaaaaa 38400
aaaagttcat aattacctta tgtctccaca gcctatttaa aaagtgaaca caacgctaat 38460
attaaaatac cacactgaag cagggatggt gactcaaaca tcaaatccca gcaatcagga 38520
ggatctctgg ggctagcctt gtcgcagaac tagttatagg acagccaggg ctatgcagag 38580
taactctgta tcaaaaaaaaa ttttaaaaac aaccacaaat gtgtctatgt atgtctgtgt 38640
gtgtgtgtgt gtgtgtgtgt gtgtagcaaa tgtatagttt tccatatatt aaacccttaa 38700
gaaatcagtc ctgtagcttt atgggactgc cttctaaatg tcatttatac ttaataata 38760

```

```

ggcacaaaaa tgtctctaata aatacttttg tatgaatgtg tataatacac cttaactgat 38820
aacataaatg tctggaagtt tagttaggat tttggaagtt gcatcaaaaa ttatcagatg 38880
aaattgttca aggatcctgg cccttttagtt gtgcggcctt gtcaaacctt gcaaaatttc 38940
tctctgtctc tctgtctttc tgtccctccc cccctctctc aattagatta tgcatcccat 39000
taattgatta catactcaca gtcagtagtg taccgccccat cttcttgttt ttctcccaca 39060
acagtgtgtg tctgacactt gccattcatc cttcagaaat aaaaatcaaa aacttgcttc 39120
tgaatttact ctttcaggtt gctcatatct ctttattgtg tggtagtatt aactgtcttt 39180
gggaagtgtt taatttgttt aaataaaccc acatctgaag actgacacca acactctggg 39240
gttatgattg acatggaaag taaatccagg cttccagggg aagacactgt cctcattttc 39300
taccacattt tcctgttcat gactagtttc aaccagaatt acccaacctt gtaaaactgt 39360
agaacacatt gcattcagtg ttccttaaat caaggacaca actcagaata aatatgcccc 39420
ggagatcaat tccatttttt cacatggccc aagtgtcagt gaaaatttca cagacattca 39480
tgtgcccagt ttctcagtc tgtccatgtg catcaggtga atgtcactta ctggacatgg 39540
aatttgattt tgagtgtccc acagtcgtca ttgcaactca tatgtcctaa gtacgtcttc 39600
aggctcccat tcatctttac tttctccacc ttgtcccgag ctatgtaaag ggtgcgccag 39660
tccccattaa cctaaatagg acagacacca ttgcaaaagt tggttagtca atctgttccc 39720
ttttattcag caacatttgt cctaattact acatgacaac aattccataa gtcaacaaat 39780
gaacttggac caagtaaaat gcagatgtct ctctgctaga gagtagatta ggagattgtg 39840
tcactactca ttcacactag aatatggaac acaggataca gttcacactt tgtcaatcaa 39900
taacaatgca aagtccaatc tgtaattttc tcttcttaac cttctttcat actagacaga 39960
agtcattgaa aacatgcaaa gagttgaaaa tacactagga ctgcattaca gataggattc 40020
agataatgta tatatgctat atataccaca tataatatgt aatgccatac catttatagt 40080
atatgatata tatgtcctaa ccaactacag agtgtacata aacaccccag accctttatc 40140
cccaaatgca cacacctctg agggactgat atcaagagat tcatgatgtg cacaggatac 40200
acctaattgca agcgcaatta gcaggaaact caccatggta gagectggat tctctccttc 40260
cgaaggagtt cagagaccaa gggcaggtga tggggagacc cagaaccatc tccaccttat 40320
atagtattga ttattggcct gagattggca tggattgcct gtggtaaaat tccagcatat 40380
cctggtggtg gaaacatctg tgatgacaat tctgtttttc tgctactttt gaaataagat 40440
taacttgagt aaagccatga aattgacctt ttagacttct gtggacttgg gctagctgtc 40500
agaaaacaca aatatccatg tccctaaagt ccaagtttct cttttggaac acttttaaaga 40560
aatgaactta tttgactcag gctattttaa tgatgacaaa ttttccatca atcagacctt 40620
ttgatcacag gttaccatat ggatattaac aattttttat acaattgaat atcaatggac 40680
atatatttct agaacattct agagtgttct agaattgtct acaacattct ggggcattct 40740
tgtaaaaacc tttgtgaaga agtgtactgt tttcctttct gggcaggaat ttgcaattta 40800
gattcatgat tttaaatatt ttataatatt gatattttca tcaagatgtg aagattttta 40860
atgatgtaaa attcccattg ttttgtgggt acatttgttg atactatgtc ctggtaatca 40920
gcattgcttt tgctaacatt actttatata ttcaataata tatacacaca cttttgtttc 40980
tgattgctat aagtgtatct tttgacaact gtgtctctaa atcatttatg caatgaaaag 41040
tcagctgcta attttctcat gtttgtgtct gagaaattct caacgttttc tccattgaga 41100

```

actttgacct gtggatggat ttgcaaatat tcaccgaaat gcatgactca aaactagttg 41160
 tcaatgttcc aaggctttta ataagaaata ttcacccatc ccatgttcag aaaggttctt 41220
 gatgtatgtt cttctttttt agtatacccc atacaaatgt gatccttatt atattttttac 41280
 atattttttct tgattcattc cttcttctct gtgtttgatt attcaagaga taactcagtt 41340
 ccactggaac aagattgggc tgacctacaa acatatttat tttcatccat tcatctcttg 41400
 tgaaatctct actttccttc agaattctaa tgtgatttgg aatacagata atgttgggaa 41460
 aatgtaataa aaatcaacca gaaaaagctg tcatttaata cttccaaagt ggataattac 41520
 ttaagactgt atgtgcactc attaaagtcc ttctcatttc tcctccagac ccagtaacaa 41580
 caacacatta atcctattta ttgagtatcc ttctggaaaa ttacctacaa ttttgcacaa 41640
 actcagggtc attcttccac atttccaaca gttttattaa aatataagct ttccttcctt 41700
 atttattaag tgaagtgagt ttctctccct tctacctgat tacagagaaa ggtgatacaa 41760
 cacagcctaa actggagtct tggaaagata aaaacaaatt ctgcctcatg tcaaacata 41820
 catttatccc taaggaaact aaagattatc tctgtctgtt tgaactttaa tattgaagca 41880
 tgtacacaaa cacacacaca catgcacaca cacatacata cacacacata cacacatgtt 41940
 tcttatgttc ttgtgtattt attcataaat attttatata tggatatggg tttttatata 42000
 ttttctatct gtggatata atttatgtgt aatgtaagta tagctatatt ttacattcag 42060
 atttatatat tccaatttat acatgtatga tacatatata catgtgtgat acatacatat 42120
 ttgtttccat tttcagtaat ttaccaatta aattcctaatt ccacacattt tgtctacctc 42180
 agaaaagtga agaaagaatg gaaaatgtag gtgcttcaaa ggacagagtt aaaacataca 42240
 aaatactgac acaacggatg ctgttattga agtcatggcc aagcttagaa ctctttgatg 42300
 tctgaccttt gagtagaact tggctaaaag tctgtctcct ttcttcttct tttttaattg 42360
 gatattttat ttatttacat ttcaaagtgt atcccccttc ctggcttcac ctctggaaaa 42420
 cccctatccc atcttccctc atctctttct gaggggtgctc ctaccacccc attcccacct 42480
 caccacactg acattccctg aactggagc attgagtcatt ttacaactca aatgctatcc 42540
 taaatgtccc ttatatcctc cccccacca gtageccttat ttataatagc cagaacctgg 42600
 aaagtgccct gatgtccaag ggcctccctg ccattgatgc caaacaagc catcctctgc 42660
 tacatatgct gctggagcca tggatccctc tatgtgtact ctgtgggttg tggtttagtc 42720
 cctgggagct ctgggggttac tggttatctc atattgttgt tcctcctatg gggctgttca 42780
 tcccttcaac tccttcaagt accttcteta actgtgttat tgtggteccc atgctcaatc 42840
 caatgggttg ctgcaaactg gtgcctctga atttgtaagg ctctgtcaga gcccctcagg 42900
 agacaacct atcaggctcc tgtaagcaag cacttcttgg catceccaat agggctctggg 42960
 tttggtgtct gtatgtgat gatccccagg tcgggcagtc tatggatggt ctttccctca 43020
 gactctgac cacactttgt tcccataact cttttagaca ggttcaattc tgggttaaaa 43080
 atttgatgat gagtgggtga ctacgtcccc caacctgggg tcttgcctaa cttctggata 43140
 tggctcttac atgttcatcc tccccctttt tgggcatttc agctaattgc atccaagttg 43200
 ggacctggga gcctcttaatt ttactggcat ctgggaactc ctgatggcta tccctgttct 43260
 ccatcattca ttgtacaca cctctgttca aattcctgac cctctgtaaa atcgtccctg 43320
 tctcctagca cacttgttct tacaccccag tccctctcct tctcctctct tccctccaag 43380
 tccctcctat cctctacctt ccaagaatat tttgttctcc cttctaagat ggtctgaagc 43440

```

atccatactt tagtcttctt cttgagcttc atatggtctg tgaattgtat cttgggtatt 43500
ccgagatttt ggggttaatat ccacttacca ttgagtgcac actatatgtt ttcttttgtg 43560
actgggttac ctcaataagg atgatacttt tttgttccat tcatttgcct aagaatttca 43620
tgaagtcttt gtttttaata gctgagtagt tctccattgt gtaaattggac catattttct 43680
ctattttgtct gtagaaggac atcagggcac tttccagggt ctgcctatta taaataaggc 43740
tacttggtgg ggggaggata taagggactt ttaggatagc atttgagttg taaatgaaga 43800
aaatatctaa taaaaattat tataaataaa taaataaatc tattataaat atagtggagt 43860
atgtgtcctt gttatatgtt ggagcatctt ttgggtgtat gttcaggagt ggtatagcta 43920
gatccctcatg tccaattttg tgaagaacca ccagaccagt tataccacca gattagttat 43980
acctccttat aattccacca acaacagatg agtgttctc tttctccaca tctttgccag 44040
catctgtgc cacctgagtt cttgatctta gtcattctga ctggtctgta gtggaatctc 44100
agggttgttt tgatttgcac tttcctgata actaaagatg gtgaacattt gtttaggtgc 44160
ttcttgtcca ttcaatatc cttagttagg aattctctct tcatgtctgt actccattta 44220
aaatagggtt atttggctct ctggagtcta actttagaat tatttgtata tttcggatat 44280
tagcactcta tcgaatgtag gattggtaaa gaacttttcc cagtctgttg gtttctattt 44340
tgtccattg acagtctcct tccccttaca aaagctttgt aatttttaga ggtctcattt 44400
attgattgtt gtttttagat cataagccat tgctgttctg ctcaggaaat tttcccctgt 44460
gcacatgtgt ttgaggctct taccacttt ctcttctatt agttgcatta tatatggttc 44520
tatgtggagg tccttggctc acttgaggtt gatctttgta caaggatata agaattgatg 44580
gatttgcatt ctctacata ctgactgcca gttgaaccag caccatttgt tgaaaatgct 44640
gtcttttttc cactggatgg ttttagctca ttgtcaaaga ccagggaat ataggtgtgt 44700
tggttcactt ctgggtcttc aattctatc tattgatcta cctgccttag tctgtaccaa 44760
taacatgcag tttttatctc tattgctttg tagtacaact tgaggtcagg gatgatgatt 44820
tccactgaag ttcttttatt gttgagaata ttttttgcta tcctgggttt ttgcttattc 44880
caaataaatt tgaaaattgc tctttttaag tctatgaaga agtgtctcct tttcagtagc 44940
ctgctgacat tccctactca agaaacaaca aatgtttatt gtttttcta ttctttgatt 45000
ttgtcccca ttatatttta cacaatgttt ggggtttatt gcttccctct ttgttttctt 45060
tcctttctat tgatttaata atctatggat tcttctgtgc attcagtttc gaggaataac 45120
agtgaggaaa tgaggcacta gaaattctga ggctttcata gtagtgaggg atggatctgc 45180
taattgtccc atttattggt ggaagatttc tgtcattctc agaatcaggg tttctgtgtt 45240
agaaatttca tggccttggg agaggtgtgg tgactaatgt aaaaactcaa ataaaatttc 45300
agttaaaacg ttaaaaagaa aagaaactat acaaccttgc ctttttcaga tcatagaggg 45360
aaaatgttca actttttctc atttaatatg ttttaagggtg aaatagcata tgtttaattgt 45420
attaattata catcattata gatttcattg tgataaataa taatcgggtt tatttcaaag 45480
tgcagcccta ttactgaca cttaaacgat ttttaatat ttagatttta atgagctaac 45540
aaattagcag tattcttgat caattttcaa aacttaatt ttgattaaca ctctcatatc 45600
ttcttgtgtg cctccaact ccactccca acccagctaa accattcact gtccaacact 45660
ggcatttctt tattacatca tgtttacata gtactgatac tcctttatgc tctattttat 45720
tttaagactt ttgaagatat tttatttttag ttttgcaaac atatccacac actttcttcc 45780

```

```

tcctatatat gcacatatat gttgcaagct aggttttgtc tactggttgg taattttcat 45840
gattagctga tttcttaaaa ttaataatat gaactttatg tatcagttga gataattacc 45900
atgggtattg cccatagtc tactgctttt gcacctgggt ttgtcatcaa gtgggtgtgga 45960
gctgacctca accaaatcag tttagtagaa tttcttcac tttggaatct taaaataagt 46020
taagaaaaag tatgcttgct tctttttcaa atgattgcta gggttcggta tcaaaataac 46080
ttgggtcttaa atctgctttt ggaggaaaat attttattac tgactcaata aatagttaac 46140
tgaaaaatag ttaatgttgt cctgtgtaat tttatcttaa ggtgtctact gctaggatga 46200
aacaccacga ccaaagcaa cttggggagc aaagggttta tttggcttaa aaatccacat 46260
catagcccat caattaagga agtcaggaca ggaactcaaa cagggcagga atccagaggc 46320
aggcactatt gcaaaggcca tggaggggtg ctgcttactg agtagctcag cctgttttct 46380
tatacaactc aggaccacca gcatgcggtg gctccatgaa caacaggctt tgctctcctt 46440
catttatatc taatctttaa aatgtcctat aagcttgtct acagcctaata cttatggagg 46500
cattttctca attgagatcc tttctctcag atgactttag tttgcgtcaa gtggcataaa 46560
actcaccagc acacttcatt taattcagtc ttagtgaaat gcatgttagt agcaataaat 46620
ccattttctg cagactctcg gacctgtgtc actgaagttt tcttaataaa acaaatgtgt 46680
gtcagtttct gtgttgtaa tgtatgttta tctgatttcc tttcttgatt ttattaattt 46740
atttatcttt cttctctca ggcactttct cttctctccc ttctctttac ctcatcaaac 46800
aatttcttgc tttgatcttt aaatgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgctc 46860
tttgactgt gtttttgta tgctgtact gaaaagaggc gtggagctca aacacgtggt 46920
taaaaataac gtggatctca atgtcagtg caggaaaaaa aaacccatat gattccaaaa 46980
accttcagtc ctcatatgtt tcatgcaaca aatttggaag aagggtgatt tagtgacaga 47040
attcatacca actcttcaag tgagtaactg tccaaaatta gatcttgta agtgtcaaat 47100
ttaaatattg agtcatcttt gggaaatatt gagaagtga gtaataaagg ttttaagaaa 47160
ataagagtga acctatctgc atttcaatat gatagctact cacttctggc agagtgagaa 47220
taaattttta agggtatggc ctttagtagg tcacacacct gtaagtatgt actgtacaca 47280
aatacaactc caagcataat ttaaaatttt tttttaaaaa aatgagaaag tggaggaata 47340
aaaaaacagc tggaaggaat tagcgggaga aatggggatc aatattatca aaattcattt 47400
tgtatatgta tgaaattttc aaacacttaa taagattatt atatgcatta aaataacttt 47460
aagcatgttc agtgtggata agtcaatatg taaatgaggg actgaaaaag taacagaaaa 47520
caaaaattct gcatagaaat acttaatatc tggaagaag acagatgtcc ctcaacagag 47580
gaatggatac agaaaaatgta gtacatttac acaatggagt agtactcagc tattaaaaac 47640
aatgaattta tgaaattctt aggc aaatag atgtatctga aggatatcat cctgagttag 47700
gtaacccaat cacaaaagaa gtcacttgat atgcactcac tgataagtgg atattagccc 47760
agaaacctag aatacccaag atgcaacttc caaaacacaa gaaaatctag aaggaagacc 47820
aactcatgga tacttcattc ctccctagaa tagggaataa aatatccatg aaaggacttg 47880
cagagacaaa gtttgaagct gagacaaaag gatggacat ccagagactg cccacccgg 47940
ggattaatcc cataatcagc caccaaatgc agacactatt gcatatgcca gcaagatttt 48000
gctgaaagga ccctgatata gctgtctcct gtgaggattt gccagtgcct ggcaaataca 48060
gaagtggatg ttcacagtca tttatagcac ggaacacagg gctcccaatg gaggagctac 48120

```

```

agaaagtacc caaggagcta aagggatctg caaccctata ggtggaacaa cattatgaac 48180
taaccagtac cccggagctc ttgtgtctag ctgcatatgt agcagaagat ggtctaattg 48240
gccatcactg ggaagagagg ccccttggtc tagcaaactt tatatgcccc agtacagggg 48300
aaagccaggg ccaagaagtg ggagtgagtg ggtagaggag cagggcgggg ggagggtata 48360
ggggactttt gggagagcat ttgaaatgta aatgaagaaa atatctaatt aaaatTTTTT 48420
taaaagaaaag gcttcatata gactctgctc ttctatttac taaatactca aatagcccac 48480
tttacataag ctttatttaa aacccaaaacc agtcatcaaa cacaagatca aacacactct 48540
atccttgtct gtggaaaatg aagattgtca cctgagtttg acatcggaca ttcttcacac 48600
atttgctagg gcatgtgcat gccttcgctc acaggaacat atacacatat gcgcgcacac 48660
aggaatTTTT ttaaaacaca ctttttctg gagaataatt tttcgtttg tttgttattt 48720
ggttggtttt ctggaggcaa gatgtcacta agtagctctg gctgtcctgg cactcactat 48780
gtagaacaga ctagacttga actcacacag atcaacctcc ctctgcttct acagtgccag 48840
gattaaaatg tatgcatccc catgcctgat taagaccatt gtattttcaa aacaaacttc 48900
acattcctgt gggaaatgct cacaagtata gctataaatg cagataaata gagtcatat 48960
ttttctgtat caacattggc tctggaacaa atgtttaaag agctgatcca aaaattagat 49020
ctcaggagga ggagtattgt tttttctaa aatgttcaga tttctgcttt acttttcaac 49080
tgtatgctga agtatctttt tttcacagca ttaaaatacc tttatttgta attagatttt 49140
aaaatactgt caaaaattat gccaggaaac aggaaggaca cagcttacc tagagggaaa 49200
aacaataaat ccaagacaga tgatttcctc tacaagggtt tttcttgga aacagatata 49260
taagcagaac cagggcactc acagtagata gcaactgcac agacaggttg ggagtttaca 49320
aaacccaaac ttgcatgtt gaggaaggagg aaatgacaca gaggagcata ttgactggag 49380
aatacccatt gtctgaattt tttttctctc tttctgttg tgacatttac tacttagtaa 49440
cacagtaagc taaacaacca gtgccatggt aggttgagt cagctcttc aggttcatgt 49500
ccatcaaaga tctacatctc tcccctggta gcttaagaga agccatggtg gttggtattt 49560
cctactgcca gacagctggt tgtaagtga atattttgaa gtcctaaaaa ttgtgttgaa 49620
ttttatagca ttatccatca ctttgcat  tttactttt tcaaaaaaat tgacaatctc 49680
atgactgcac ataatatatt ttgatcaatt ccactacatc ctctttaata ggacaatagg 49740
aggtgctggt tgggttccta tagaggactg atctcacagg aggaagtatg ccactttgag 49800
gaattggatt tgaggctc  atgcaatgct tgtctacttt tctctgttta ccacttttgg 49860
atcaagatgt aatctcttag cttctggatc gagacagtgc catgataaag atggaaactc 49920
atacctccga aacagtgacc ttgaagaaaa acttccttct gtatgttgca ttttctactc 49980
taacaaattt actttttag tgctccaatg agtaactgac atatcaatta aaagtggggt 50040
taggggagac atactgactt gaataatttt tgcactatag tgtaggtttt gacaatttct 50100
acagtgtttt atatttcaga actgtgttcc tgagatgtgc gatatctcag ggggtaatga 50160
tgactgagtt ttgtgacct cttagtagga gaagaaagaa ccagtatcca ccagctatct 50220
tctgacctcc acacacatgc caaggtatgg gcatacccg tcccatgtac aaaataaatg 50280
ataaagtttt aacatgtatt atgcacaaat ccaaaattaa taaggacact tactacgtgt 50340
ataactgaaa cccaaagtaa ttgtaaaatc aagtatttca ttttctctt tcatgtgcag 50400
atggataaca gaagtcaaaa ctgtctttct ggctgtttta atataacata taattctatg 50460

```

caaaaaatac tgatactatc ttttaaaaag aaaaaaactg tatatgcata cattattttca 50520
 tattaaacac tattaagaag aaatgagtgc aaacattgta tttcaaattt cagattaatg 50580
 gattctgaca tgtggaaggg ttacatttcc caaatgtctc atcagcacag gttcctgaaa 50640
 actggggaaa cccaggacta atgagatgga ttttcacata gaggtggata ctgccaagcc 50700
 tgggtacctg agccccacaca cccatgaact caaaataatt tttaaaaaga agaaatttaa 50760
 aatttaacta tataatattat gattatccaa taagctttct agatgtttct ttggttatat 50820
 gtcataattg tcgtgattga caagctgtta aatttgagtg atgtttgtaa agaaataaca 50880
 ataaattata tctatagaag caagacttca tctttaggat caagactgta tgctccatgt 50940
 tatcacagct gtttaaccag acaaaggcta gaacctccag ttccacaaac aaatgtgaat 51000
 tctactgtgt ccagtttact gccatgtttt tggatcatgt aacaatgtgg tttgtgccaa 51060
 cattagagca gagttcacaa gtgcattttg cctccccagt attgctgatg aatccatggt 51120
 tcaggttcaa ggggtgttgaa aacttgattg aaaatggtea gacttgatat tcttcagta 51180
 tatctgattg gaggaactga taatagatat cagatttaaa cctctaccat tccagttaag 51240
 ataatatgat agcatcttgt tcttcatctt cttttttctt aatagggaca taaaaccaat 51300
 gaataaaaaat atacctgaaa catgggatag gcactgggca ttggaaatga caataaaagt 51360
 aaattttcca tccctagtaa agttctccag gaacctatct gtatactaaa tgacacaatg 51420
 tcaatgtcag tgcacaactg ccaactggga tgcagaacac tgctcacgcc aaccatcctg 51480
 aaagccaact ataaaaagca gagagatact ctgcaccttt tcagtgaggt ccagataccc 51540
 acagagcaga gacagtcgct cacac 51565

<210> 7

<211> 107376

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸:107 kb 3'臂序列(58665-166040)

<400> 7

ctcaacaaga tcaggattag gtgagtcaaa gcacattaat tttatatctt gaagttttta 60
 ttttaatttt attttaatat ttaagttatt aatatttaat atttaaagta aataatattt 120
 tatttgttct ttatcctttt catatattta tataatgtat atttatcttt catacttcca 180
 cacacctcat ccaagcaaca catctccctc tatacttcat ggttttttaa ttttattatt 240
 atttattatt attattacct caatgaatcc aattggtgct atttctgaat agggatatgtc 300
 aattcctgga ggcatgagta atgtaatata ccagggtat tatgtaatat aaaaaaatgg 360
 actgcaggga gctggtggca catgcattta acctagcgt caagaggcag aagcaagcat 420
 atgtctgcgt tttagataac cctagtctac agagtgagtt ccaggacagc aagggtact 480
 cagagaaacc ctgtctcata aaacaaaaaa gtatatTTTT taaaggcaga agaggaaagg 540
 agggaggagg ggagggaag aggcagacag acagacaggc aggcaggcag gcaaaaagaa 600
 ggaaaaagaa aaatatggac cctccctctc ccagaaacta tcaactggca atagctcttt 660
 ggtggggggg ggggggtcctg aatccctctc tgctcaattc tagaatgtta attagcttga 720
 tctgaccagg gtcttgtgca gaacaccaca gttgctgtga gttcatgatt gtaacagatc 780

tgtcatgttc agaaaacaga attttatggc tctactcccc atccagatga taattgatgg 840
 ctaagcatcc acagtcactt gtcctcatcc tttgaccagc tacaaatttc tgcacaaacc 900
 actccccact gtaaaaagtt gagcagaagt caaacatgga ggcacacacc cttaatccca 960
 acacttggga ggcacgggta gatgaatctc tgtgagtatc aagccagcct gatctacata 1020
 ctgagctcca gaagatccag gtacatagtc tctatctaaa caaacaaca caaagttaaa 1080
 aagttgatatt gaccaaaaatt gagagaagca taaatctatg agtatTTTTa agaccgtggc 1140
 ttggaaacat gacagttcat caccactggg ctccttcata ggctccatga gctccattgt 1200
 cacaggcttt tgactcgaat tacaatagaa acccaccett acccctgttc ttccatagat 1260
 atgaagttcc ttccatggag ctggcatgaa atttaateag agagtgcctg gctccccaat 1320
 acagccttta ttgcaccagt ggacgcaagg atgattttat agtgtgttgg ggaagcatgg 1380
 tgacatcact gacatcttat cccacataca cagcctatta agtacatcta agcactgtga 1440
 acgagtttcc tagtccattt gacatcgatt tcttgatgcc ctacagccac agcatttggg 1500
 gtcttcagca atagtgcctt accatttaga tatgggtgat agtcaagaga tatggcaata 1560
 gccaaagtat tttggttatt ccaaggett cttccattaa taaatatcat ggtggtacce 1620
 ccatgactaa aaattagatt ttcactgaat aaacctatgc ttctgggaac agcattatac 1680
 cattgcaggg atcctctgct gaaacttttt taatactata tttttactta gcttacaac 1740
 tagtggattt ctgtaagact tcatttacct tcagtttcag ttgaccctcc cctaccctgt 1800
 tcttccctat gcccaaacac atccacacct actcctctag cccacagctc tcactttcta 1860
 atcttccctg tcaccagtgc ccaattatat cgctgtatt attatatttt aatcacacaa 1920
 ccataggttt ccatatgagg ttttaataac cttcattct ggttaaacct tccaccacac 1980
 cctgatttcc ccatccaca accaactcca tgattaagcc ttctgcccc aagtattctt 2040
 ctttatactt cattttaatg gcattacatt tgatggacce acttccttga tggacceaat 2100
 tcaaacaggt ttctaattac ctggattcct tacatactcc atattatgca taaaaataa 2160
 aagattcaag tctaattgtc acatgtgaga tagaatgtgc agtttgtctt tctgagcctg 2220
 agtggcctca ttaagtataa taatttccag ttcttctat ttacttggaa atttcatatt 2280
 ttcatgttc tctatggctg agtaatatc catcttatac attacatttt cttatccat 2340
 tcattagttg atgaacagtt gggccaactt cgtttcttag ctattatgaa cttaacctca 2400
 gtgagcatgg acattcaaag gtctctgtaa cagaatataa accccttgg gtacatatct 2460
 agaaatggag gaactagaga aagcacccaa ggaactaaag ggaactgcaa ccctataggt 2520
 ggaacaacaa tatgaactaa gcagtacccc ggagctcttg tctctagctg catatctatc 2580
 aaaagatggc ctagtgcggc atcaactgcaa agagaggccc attggacttg caaactttat 2640
 atgccccagt acaggggaat gccagggcca aaaagggggg atgggtgggt aggggagtg 2700
 gggggggttg gggacttttt gtatagcatt ggaaatgtaa atgagctaaa tacctaataa 2760
 aaaatggaaa aaaaaagaaa tgggtgaact gagtcacatg ggaagtcttt ttctaattct 2820
 tggatttgtt tatttgatgt tcatagtttt tgggttttgg ttggttttgt tctaagttct 2880
 ttgtatatgt tagacactaa tcctccatca catgtgtagt tggcaaagat ctccattccc 2940
 cgagatacct gtgcatttaa ttgacagett cctttgccgt agtttttaat tccatgatat 3000
 ctgacaagtg tttgtcttac tttcttgeta caagaatcct attcaaagaa tccatacctg 3060
 tgtctatggg taacacacac tccatgcttt cttctctatc agcttcaggt taccatgtct 3120

tatgacacgg tctttgaatc atttggagtt gaggtttttt tcaaggtgac agggaagagc 3180
 ccaggttcat ttctctgtat cctgatgtcc actttttcct attcgggtcta tttatggaat 3240
 tatataatatt tatgttaggt catttttcag tggaggcatt aacaatatcc agaaggggac 3300
 tattttcttac tagtgttgag atgggtattct cctatatggg gctgggtactg aaggcagcaa 3360
 gtctaccccc tagtcttcct gtgagattca actactatct gggacctcga gtgagactct 3420
 gtctgtagga tacatggggc ttggtaaact ccaatgtgaa acaaaaaata tataatttta 3480
 gtttagattc atagaaacta catcctcaaa taaacacata agttctaaaa agtaccaatt 3540
 taggtcttga tataagatca ttgtcatat aaaaattttc catataagga aaatttccat 3600
 acaaaagtca tgtatatttc caaatataca aaattctgta aaatgttttt gcatgataca 3660
 tcttgtcatt gtttgcctct ttaatggctt gtatttgttt cattttctac tctcatcaaa 3720
 tatcatgtat tactatecta aatatatgaa ataattctgt tccagcatta cagatgacat 3780
 caggaatttt ccagtatatt ttctctggaa cctgaaacat caatatgaag atgaagcaat 3840
 cttgtctctc agatcatatt ttcttattta ttgcaaatca caattctgt ctctgtactt 3900
 tctctttcac tcattgtttc ccatgttcta atcgggtatta gtgcattctt gaatgtttta 3960
 ataaatttat ttacttgca tacgtgttgt taaaagggga agctaaagta caatgcacat 4020
 aaatacctat ttgacttttt ttaaaggaga ggagggttg agggttgga tgtgattgct 4080
 cagcctgta atttcagcac cggggaaaga ggtagagaca gttgaatcct ctgatgtcac 4140
 cagtagccag cctagactac atgaaatatt gcaggccagt gagagatcat cccagaaaac 4200
 aaggcaggga catgacaggc agctcagtgg tcaagagcac tagctgtctt tccacaggac 4260
 ctgggttata ttctaacac tcacatgaca actcacaact ttctgtaatt ccagttccca 4320
 gggatttgac atatatatgg acaaccatgc aagcaaaaca ccaatgcaca taaaatttta 4380
 aaaaactaat tcaattaagg cagatgtgaa tgaaggatgc cacctgacat aatcctgtgg 4440
 cactcaacat ttacatgcac aacttgtgt ccatgaacac aagtgcacaa atacagagag 4500
 agagagagag agagagagag agagagagag agagagagag agaacataca ccaagagtc 4560
 tcatcattcc tacatgttac aaactccaat attgtaattt tgactttaga aaggaaggta 4620
 aaatattata ttggttgttt aaagtaaaca tttaaaaact ttgtagcaga aaatggccta 4680
 gttggccatc attggttagga gaggcccttt gtcttgcaaa gattatatgc ccagttacag 4740
 gggaatgcca gggccaataa gcagaagtgg gtgggttggg aagcagggtg gggaagtgt 4800
 tagggaactt tcaggatagc atttgaaatg taaatgaaca aaatatctaa taaaaaaaaa 4860
 gctttgtgtg ctagtagttt gtcaacctga cacaggccat agtcatttgg gaaaggagac 4920
 actcaagaaa atacctccac caggttcaac tgtggagcat ttcttgactg gtagtcaatg 4980
 tgagggcagg tcctactcac tgtggaaaac actgccaagc aaacctagag gaaccagaca 5040
 gtaagcagaa ctcttccata gcctctgtat cagtttctgc ctccaagtct ctgccttgac 5100
 ttccccaagg tgataagcta caagtgttca gatgaaataa acccttttct ccctaagatg 5160
 cttttggcca tggagttcac aaaagcaata gaaaccctaa gacacagagt aatgttgaag 5220
 agcttagatc acaaatcata tcttaaagtt gaaagaaacc accccacaca cttgtatgca 5280
 tatatacaaa ttcatatgtg gacaaacata catatatact caaacatac atgtatgtat 5340
 atttaaaaat ttgaaatgtc acaggaagaa ttatttttga gtctttgaac tactttgatt 5400
 tattttacttt aaccacttgc ctgctattgt tgggttcaat ggtcatgctt tcataatgcc 5460

```

ttctaaatat taatttgcac ctctggacca ggatcatgct caacttttgt cagagaagct 5520
tgtttttgtg gtgagatgaa tgttatgaca ctgaagtttt tgcatacagt tctgacatat 5580
gtctatccac ctaccatttg atcacccact acgtgtgtgt gtgtgtgtgt gtgtgtgtgt 5640
gtgtgtgtgt gtgtgtgtgt gtgtgatttg aatgagaaca gccccgtag gctcatagat 5700
ttgattgctt gatcactaag gagtagcact atttgaaagg ataaggagat gtggacttgg 5760
aggaagttag tcactgagga tgagctttgt ggtttcaaga gccaagcca gacctgtctt 5820
cctcatccta cttgctatgg actcagatgt aaaaatctcc actccttcag caccatgtct 5880
gcctgtgtgc taccatgcca aaaaatggaa taaatctctg acactgtgtg accctccctg 5940
ccccgagaat tgttgaccta tattggcca tgaggagcag agacaatggg gaaagagcag 6000
gggcttagaa accctgtatg tatggtaata acgatacaca gggaccagt tcagagagac 6060
aggtaagtt tacttgttgt gattcaaggg tgatatagtt gtcttagtta gggtttctat 6120
tgctgtgggg agaaaccatg gccaaaaaca caaatgagga ggaaaaggtt tattgggctt 6180
acacttcac agcactaatt atcattgaag aaagtcaagg cagaaactca aaccagacaa 6240
gaaccagag gcaatagctg atgcagaaac catggaaggg taatgcttac atattactca 6300
tggttatttc agcttgcat agctttttat tattattaat cattccatta gtttacatct 6360
caaatgatat ctactttca ggtaacccc tccaccaatc cccatgaata ataaccaat 6420
tctggatac cctccattg acccccaccc cacatccacc ctccacctc cctttgctt 6480
gtatgagatt tctccccat ccactcacat tctctgaacc cactgctcca gcatccacct 6540
acactggtgc atcacccctc ccattgctgt caggcaaggg catcctctgc tacatatgta 6600
tctggagcca tggatccatc caggcacact ccttggttg ttgtctagat tctggaaaaa 6660
ctaggtgate aggccagcct aagttgttat tccattgggg tagcaattcc cttctgttcc 6720
tccagttctt ctgccagctc cccaccagg ttccctgagc tcagtctgat ggttggtctt 6780
aagcatccac atctgcattg gtcagttgct agccagactt cccaaggaac tgccacacca 6840
ggttcctgtc agcaagcacc tcttgaccat ggcaacagt ttaggtttgg tgtctgcaga 6900
cagggtaggt ctccagggtg agctttcccc aaatggcact tccttcagtc tctgttcaat 6960
tttttgtccc tgttcttctt ttggatagga acatttatgg gttgaaaatt tgagatgggt 7020
gggtagcttc atcccttgac ctggagctgt gcctatctat tggaggtgggt ctcttcaggt 7080
tctgtctccc cttctctgt gcatttctgc taatgtcatc tcctttgggt cctggtagcc 7140
tcatgtttcc ctggtgtctg tgacctcca gtgactgtcc ccagttctc atttcttact 7200
gctacatatt tttgttcga tatcttgacc ttctgtatct ctttgacatc tcctccagtt 7260
cctgatactt cctccttat ttcctacccc tctctctcc ctcccaggtc ttctctaat 7320
agaacaaaaa atggggaaga gactcaaata cttgggcaca gaagaaaact ccctgaagat 7380
aacaccaatg tgttatgctt taagatcaat tgacaaatgg gacctcagaa aatgaaaaag 7440
cttctgtaag gcaaaggaca ctgtcaatag gacaaaacag tccccacag attgggaaaa 7500
aatctttacc aaccctacat ctgatatagg gctaataatc aatatataca agaacttag 7560
gagtaaaact ccagagaatc aaataactct actaaaaaat gagataaaca gagaattcat 7620
gactaaagaa acttgagtgg ccaagaagct cctaaagaaa tgttcaccat ttgtagtcac 7680
caggtaaatg caaatgaaaa caaccctgag ttctacccc acaccagtca gaatggctaa 7740
gatcaaaaac tcaaatgaca gcagatgctg gtgaggatgt ggaataagat gaacactcct 7800

```

```

ccattgatgg tgggggttgca agctggtaca accactctgg aaatcagact ggtgggtttct 7860
cagaaaaattg gacatagtac tacctgagga cctagctata ccactccagg aagtataccc 7920
agaaaaatgct ccaacatgta ataaagacac atgctccact atgttcatag cagtcataatt 7980
tataataagcc agaagctgga aacaacctag atgtccctca acagaggaat agatacagaa 8040
aatgtgatat atttacacaa tggagtacta tgcatagatt taaaacaatg acttcatgga 8100
attcacaggc aaatggatag aactagaaaa tatcattctg agtgaggtaa tcaagacaca 8160
agggaacaca catgggtatgt actcactaat aagtggatat taacgcaaaa gtcacaaatt 8220
gccataatac aatccataga ccatatggag catagaaaga aagaccagga tgtggatgct 8280
tcagtcttgc attgaggggg gatcagcttg cattcttaag aaaccaaga ctatcagccc 8340
aagggttaaca ccactcagaa tgggctggtc cctcaccat caatcactaa ttaaaaaatt 8400
gccctacagg cctattgagg cactttcatt tttttctttt ttattagat attttcttca 8460
tttacatttc aaatgctatc cactataccc tcccccaac cctgctccc aacctacca 8520
ctcctgcttc ctggtcctgg cattccctg tactggggca tatgatcccc gcaagacca 8580
gggttgaggc actttcttaa ttgggettcc tttctctcat atgactacca cttgtgtcaa 8640
gatgacataa aactatgcaa cacagacagt atatacatat gtattatcta tcatctagaa 8700
attcatcatc tatgcattca tcatatatct atccatcatc tatcaataca tcatgtgttt 8760
atccatcatt tatctatgta tcatctattg tcgctctgtt caccctctac ccatctatct 8820
attaaaaaat taacttgatc agggccatag tgacacaaac ttttaatccc agaatttggg 8880
aggcagaata cggctagcct gatctacata cagagtaagc tccaggatag ccagagctac 8940
acaggaaaag gttgtctcaa aacaacaaaa aataaattaa tgtgtataat gatcaaggaa 9000
gacacttaac ataaatttca tcatctatgg gaatccatga acctgcacac ataaaaacgt 9060
atgtttactg aatatacata cacctggagt atttaatttc tgaagtacac tagtgaaatg 9120
tcccatctat ccacacaact ctagggatct ggggttaaatt cctgggacac aagtaaata 9180
gggagggggg agaacagagt ctccaaaagt gtcccctgaa gtccatacat gtgctggcta 9240
tggtgtatac acccactcct agacatgcac aataataaat aactttccta aatacagaag 9300
aatctaatta cctcaaaaag agatctttat tacagatttg ttcaaatgct agactataaa 9360
agttttactca gatagcatgt aactttttga taccctgttg ttcttttctc aacataccag 9420
agatgaacat aaaaaagagg tatgttttcc tcttttttga atatatattt aattggttgt 9480
attgatgaca caagattcca atacacctga tcatgtatga catattagtt tcttttggcc 9540
aactacttgg cataaacagt ttgagaaagg aagtgtgat tcaatcatga tttaagatag 9600
tgtacagccc atcatagtgg gacagaaact ggggcatgta ggctactct gtgacacacc 9660
attaagaaat atcactgact gtccctactg caaaagccat tactctcca tagtgctca 9720
gttaggagta gacctataag tgacatccat aactatgcat atatattaat catctcttta 9780
ttgattattt catctatgca tgcattccaa catgcatcta tctatctatc taatctatta 9840
cctatctatc tatcaatcta tcaatctacc catcatctat tatcaattga tctatcttat 9900
agtgatatat catttcattc tctataatct acccaattat aatctatcac atattcttcc 9960
atcatctata tcaatccatc atctgtctat catctaata gtcttttttt cacctgtcat 10020
ctaccaatat gtttcttcta ctactatcat gttctatatt gtgacacagc ctactaaga 10080
agcccagaaa ctactttac aacactagct ggacttgagt tccatgatcc cacattctca 10140

```

gacttacaag tatatgtgat tacatagata aatagatagg tttataggta ggtaggtagg 10200
 taggtaggta ggtaggtagg taggtagata gatagataga tagatagata gatagataga 10260
 tagatagata gatagataaa tagaaagaaa tatatgtgat agattcataa ttgatagatg 10320
 attgatagat caattgagag acagataagt acatatataa gaagatagat ggatagagag 10380
 atatcaatac agaattgtata gatagaaata gatacatata gatgatatag atagattaat 10440
 tagattgata aacacagaat atacatagat gcttatatag atggtagtag atgtatagat 10500
 aacagggtgga gagttagatg atagatttta tgttagacaa gcatatgata tctataaaca 10560
 tatgtgtcta tgttatgtag ataggtaata gattaatgat acacaaataa atggttgata 10620
 tatggatgag tgaatggata gatataatcca taagtatatt tcagtatata ttaaactgaa 10680
 atattttctat tgatatatga acatatatac tttttataag tataactaata tgtttgtaaa 10740
 tattttagata tctgatgtat atacatgtct atcttatata tagatgtcat ctctctatct 10800
 atacctcata tatcaataat ctgtcateta cctatgttat aactcattaa cccagttaat 10860
 catacacaaa ttcaactaaa ataaattctt cctcttttta ttggatattt tattttattta 10920
 catttcaaaa gtatccctc ttcttggtt tgctctgaa aaccctatc ccatctgccc 10980
 tccccctgca tctatgaggg tactcccaa cccaccacc ctcccactcc caccaccca 11040
 ccttggcatt ctctacact ggtgcaceta gccttcacag gaccaagggc ctctctccc 11100
 atgatgccag ataaggccat cctctcctac atatgcagct ggagccttgc aaacccttc 11160
 aattccttca gtctttccc taattcctcc attggggtcc ctgtgctcag tctaatcaat 11220
 gattggctgc tagaatccat atctgtatct gtcagactct gtcagagcct ctgaggagac 11280
 agccatacca gggctcctgtg agcaagcact tcttggcata ggctgggtt ggtgtctata 11340
 tatgggatgg ataccatct ctgatggtc tttacttcag cctctgctcc acactttgtc 11400
 cccatattcc cttagacag gagaaattct gggttaaaat tttagagata agtgggtggc 11460
 catatccccc aactaggggc ctgacctatc ctctgggtat ggcccttaca ggtcctccct 11520
 ccactttgtt gggcatttta gctactcatc tccactgggt cctgggagtc tcttgctttc 11580
 ctggcatctg agacattaag gtagctattc ccagttcgcc atccccatt gctagacacc 11640
 tctcttcaat ttctgacct tctgtgtatc ataccatct cttccatac ctgacctgt 11700
 ccccttttat tgtgtctcct ttctctctc ctctaagtc ctttgacccc tctacctct 11760
 gtattttgtt cccatttcta aagaggacta aagtatccac acttgcctt cttcttctt 11820
 gagcctcata tggctctgtga gttgtageat gggattcttg agctttttac ctaatatcca 11880
 cctatcagtg agtacatata atgtgacct gtatgttctt ttgtgactga gttacctcac 11940
 tcaggatgat attttctact tccatccatt tacttacgaa tttcataaag tcgttggttt 12000
 aatagctgag tagtactcca ttgtgtaaata gtccacatt ttctgtatcc attcctttgt 12060
 tgaagggcatt ctgggttatt tccagettct ggctgttata aatatgtctg ctatgaacat 12120
 agtgaagcac gtgtccatat aatatgttgg agcatctttt gggatatatgc acaggagtgg 12180
 tatagctggg tcagcaggta gcactatctc cagttttctg aggaatagcc agactgattt 12240
 ccagagtagt tgtaccagtt tgtaattcca ccagcgttgg gagagtatc ctctttatcc 12300
 atatccacac cagcatctgc tgtgacctga ggttttgctt ttagccattc tgctggtgt 12360
 gaggtggaat ctcaaggtea ttttgatttg catttccag atgattaatg atgttcaata 12420
 tttcttaagg tgtttcttgg ccattcgaga ctactcagtt gataattttc tctttatctc 12480

actacceaat tttaataggg ttatttgatt ctccaggactc taacttccttg aatcttttgta 12540
 tatattggat attattcctc tattggatgt aggattggta aagatctttc ccaatctgtt 12600
 ggttgccatt ttgacctatt gacagtcccc ttacacctat gctttgcaat tttatgagga 12660
 gtgtaaaata ttatggagtg taaaaatgtg aattaaaaat aaaatttaaa aaagtctaaa 12720
 ttttttagtc tctttctcta tttcttcctt gcccatgtta tcattgagta gagagtgtgt 12780
 cagcttccat tcctatgtga gctttctgtt gatattgttg ttattgaaga ccagccttag 12840
 tcgggtggta tctgatagga tgcataggat tatttcaatc ttcttgatc tattgacacc 12900
 tgttttgtga cctattatgt ggtcaatttt ggggaaggta ctatgaggtg ctgagaagaa 12960
 ggtatattct tttgttttag gatgaaatgt tctatagata tctgttaaatt ccatttggtt 13020
 cataacttct gttagtttca ctatgtctct gtttggttct tgttttcatg atctgtcaat 13080
 tgctaaaagt ggggtgttga agtctccag tattattgtg tgagtttcaa tgtgtgcttt 13140
 gagctttagc aaagtttctt ttatgaatgt ggggtgccct gcatttgga catagatgtt 13200
 cagaattgag ggttcatttt ggtagatttt ttcctttgat gtgtatgaat gttatctttt 13260
 ttgataactc ttggttgaat gtcgatttta tttgtctatta gcttgtttct ttggaccatt 13320
 ttcttggaat attgttttcc agccttttac tctgagatag tgtttgtctt tgcactgaa 13380
 gtgcatttcc agtatactgc aaaatgctgg gtcttgttta catatccagt ctgttagtct 13440
 atgtctgtt attggagaaa tgagccaatt gatgttaaga gatattaagg aagagtggct 13500
 gttgcttatt gttgttttct ttgttgagg tggaattatg tttgtgtgtc tatcttcttt 13560
 tgggtttgtt gaaagaagat tactttcttg cttttcctag ttataatttc cctacatgtg 13620
 ttggtgtttt ccacaaatta tccttttag gactgaactt gtggaagat gttgtgtaaa 13680
 tttggttttg tcatggaata ctgggttct tccatctacc gtaattgaga gttttgctgg 13740
 gtatagtagc ctgggctggc atttgcatc tctttgggtc tgtataacat ctgtccatga 13800
 tctctgact ttcatagtat ctggtgagaa gtctgggtga attctgatag gtctgttttt 13860
 atatgttact tgacctttt gccttactgc ttttaattt ctttctttgt tttgtgcatt 13920
 tgggtgtttg actataatgt aagagaagga atttctttc tgggtccagt tatttgaggt 13980
 tctgtggtct tctgtatgt tcatggacat ctcttcttt aggataggga agtttcttg 14040
 tataattttg ttgaagatat ttactggcac atttagttag gaatcttcag tctcttctat 14100
 acctattatc cttaggtgtg gtcttctctt tgtgtcctgg atttctgga tgttttgat 14160
 taggagcttt ttacattttg ctttttgcatt tttctttgac tgttgcataa atgttttcta 14220
 tgctatcttc tgccccctgag attctatctc ttgtattttc ttggtgatgc ttgcatctat 14280
 gactcctgat ttatttcccta ggttttctat ctccagagtt gtctcccttt gtgatttctt 14340
 tattgtttct atttccattt ttagatcctg ggtggttttg ttcaatccct tcacctcttt 14400
 ggttatgttt tcctgcaatt ctttaaggga tttttgtgtt tcttcttaaa gggcttttac 14460
 ctgattacct ctgttctcct gtatttcttt aagttagtta tttatgtcct tcttaagtc 14520
 ctctatcatc atcctgagat gtgattttta atcataatct tgcttttctg atgtgttggg 14580
 gtatccaggg tttctgatga ctccaagtag ccttggttct tgttgcttat gttcttatgc 14640
 ttacctcttg ccatctggtt gtctctggtg ttagctgaac ttgttctctc tgaatggatc 14700
 ttatccctcc tatgagcttg tgagcctgtg atcttaggtc tatcagcact cctcagagac 14760
 cagttctttc tgggtgggggt ttgggtaagg agaactgtag cacagggtta tctcaggggc 14820

acagatggaa accagaagct aagttcttcc tcttatatct gcgcctcaac ataccacat 14880
 caccttgaac ctttccataa tataccatca tgatttatcc cattccagta gttgctttac 14940
 actatatatt tatttcaatt ttatcctgga gctatgtata gcaataaagt caatttggca 15000
 agagagttca ctgacatctt ttatttataa tgtgcataga accctctaaa attggctgct 15060
 taatatgggt tttgatttgg tttgattttg attttttttt tttttttttt ggagacaggg 15120
 tttctctgtg tagccctggc cttcctgaac caggctgggc ttggactcag aaatctgcct 15180
 gcctctgcct ctgttggaa taaatgtatg tgctacgacc acctggcaag ataatatgta 15240
 tttaaactcag tctgaaactt cttataatct actgttccctg tattacctgg aaccaacctc 15300
 cctaggcacc attgacctg tgttgtgagg attaatctt cactaaacat taatttagta 15360
 tcacaagtat gttttacatt tttttctaaa agtgtcaaat cactttacac cactttccaa 15420
 actgcttcat aatttagttt gtttttattt aattctgtgc acacttgcaa acaaaagctt 15480
 tcaaggattt cgtcagagtt gaaaaatctg tatttgtaga tttttatttg catttttgca 15540
 aaactgcata aattaatatt tgcattttat gactacaagc gagcctgata aattttgcta 15600
 ctaacacaca ttctgatatg tttctgtgtt aagtaaagt ttttaattctc aaatcttaat 15660
 ctcatatc tggaagagga ggtgaagagg atctcaaaga agttgtggag gggaaccata 15720
 atcagattat attgcatgaa aaagagtata ttttcaatta aaaaaatgta aagctcatct 15780
 atctgccata aaagtcaatt cgtttataaa ataacatttt taaatttttt atttgatatt 15840
 ttctttattt acatttaaat gttatcccct tcccagttt ctctctgaa aacccctat 15900
 ctctttcccc ctccccctgc tccccaacct accgactcct gcttcctagc cctgacattc 15960
 tgctatactg gggcatagaa ccttcacaag accattgatg accaactagg acatcctcta 16020
 ctacatatgc aactagagcc acaagtccca ccatgtgttt tctttgattg gtggtttagt 16080
 acctgggagc tctgagggtg tgaattgggt catattgttc ttcctaggag gctacaaacc 16140
 ccttcagctc tttgggtcct ttctctagct cttcattcgg gggccctgtg ttcagtccaa 16200
 tggatgactg taagcatctg cttctgtatt tgtcaggcac tggcagacct tctcaggaga 16260
 cagctatata atgctcttgt catcaagctc ttgttggcat ccataacagt gtccgggttt 16320
 ggtggttgtt tatgggatgg atcctcaggt ggggcagact ctggatggtc attccttcag 16380
 tctctgctcc gaattttgtc tctgtacctc cttccatggg tattttgttc ccccttctaa 16440
 gaatgatcga agtatccaca ctctggtctt cttctctctt gagtttcata tgctttgaga 16500
 aatgaatctt aggtattctg agcttctagg ctaatatcca cttatcagt agtacatatt 16560
 gtgtgagttc ctttgtgatt gtgttacctc actcaggatg atgccctcca ggtccatccg 16620
 tttgcctaag aatttcatga attcattgtt ttttaattgca gagtagtact ccattgtgta 16680
 aatgtaccac attttctgta tccattcctc tgttgaggga catatagggt ctttcagct 16740
 cctagctatt ataaataata ctgctatgaa cgtagtggaa catgtgtcct tattacatgt 16800
 tggatgactc tctgggtata tgcccaggag tggatattct ggacctccg ctagtactat 16860
 gtccaatttt ctgagtaacc gtcaaatgga tttccagagt ggttgtacca gcttgcaatc 16920
 ccacggatac tgtcaataag acaaaaaggc aaccagcaga ttgggaaact atctttatca 16980
 atcctacatc agaaagaggg gacatatcca atatatacaa agaactccag acatccacat 17040
 aacctatatt aaaaatgggg tacagagctt aacaaagaat tctcaactga ggaataccga 17100
 atggctgaga agcaactaaa aaatgttcaa tatccttaat catcaggga gtgcaaatca 17160

```

aaacaaccct gagattccaa tacctcacac cagtcagaat ggctaagatc aaaaactcag 17220
ttgacatcag atgatggcaa ggatgtggaa aagaataaaa tgacaatatt aactgtgtct 17280
gttttacaag agtttctcta taatggcact ttctttccac agctcaatga gaatttgata 17340
tattgatttt taatgtgtat tatcatgtac agttggcata tgtgctgata tgtgggtgta 17400
cagaaaatac agtgaaaaat attcacaggc ctactatttt gaaaattctg gttttatgtg 17460
cataatttgg aatagattct cagacccctt ctgtggggaa atattggccg ctctatggtt 17520
ctggttatat accccagagc ctttggggac aaatacttct aatatattaat ttttcagcta 17580
tattttttata ataaaaattg agtgtgttca caggcatatt tcctttctgt ctgccatctt 17640
cataatatga gcatgcctag tgggtgttgc atgctttcaa acaaatgatg cataatttta 17700
caggaatcat gaccaaacat gcatcatgct attttgttct tgaaacaaag aactttaaac 17760
tgagcatggt catgaatgtg catcttcaact gtgcattttc agaaatgtgt ctgctcaca 17820
atcatttttc tatatgaata tgcaaaggte cctgattaa atgtcactct ttaattgttg 17880
aaggaattgt cattactttg gaaataacct catgtgtcat ctattacaca aaataaatat 17940
ttttgtacta tgttcactct gtaaacacca aaatgtgaat tcacagacca aaagaacaat 18000
tcttatcaaa tatgtattac acacataaca gattcaaata cttttagggt gtattgtgtt 18060
attattattc tcttatacca tcataggett ctcagtgttc tccattgttt acttcatagc 18120
ttcgtgtac atcctggta gcatgaaatt ggaattttct gtgctgggca tatttttgtt 18180
tttctgaaca gaaaattccc cattcaggct cctgaaaaac tttctgcatt tgagtagaac 18240
agatacattt ttaaaactta catttaaatg ttctttcttt tcctatctaa agaatgttgt 18300
tagctttctg gaaacttcta aacaaaaacc tgggtccaaat caataaactt ttataaaata 18360
actccctatg gtttagccaa tgcacagtaa tttatatatt tcaccaaact aagtgatgat 18420
acacagacat tttttatatt atgctgactg aaacttatta tcagatgatt gagaattttg 18480
agcactagtt tgaatggaaa attaataata acaataataa taaataaaat ttattataat 18540
tttctaagga tatctttgtt aacattttgt gtcaggacac tattgctcta atatgaaaat 18600
ttgaggtttc ttttctcctt ttgagacatt tgaaagagtt tgtgaagcag gaatgatgtg 18660
ttggctcagt ggacaatgaa gcttgtcacc aatcctcatg acttgagtta tagcacaagg 18720
aaccatgttg tagaaggagg ggatcaacac caaaagtga tcttctgggc tctgtggcat 18780
agacatacat atacacacag taaatatatt ttaattaaat taaattaaaa ggtcataaag 18840
tcaaggtatt aactaccact gattatccaa tcctgactt tgctttgagg atgaaaaatt 18900
ttttctaaga gaggttttta attaatattt ttatttgttt gtttgtttat tatgtacaat 18960
gttctgtctg catgtatgcc tccatgccag aagagggtaa aagatctcct tatagatggt 19020
tgtgagccac catgtggttg ctgggaattg aactcaggac ctctggaaga gcagtcagt 19080
ctctcaacct ctgaaccatc tctccagcct tgttatagat ctatttggtt acctgtctat 19140
ctatacatgt atctatctct ctatctgata ctttctgect tgcaggagtg tgttcatttt 19200
aactgtgcgg cctagacacc accaaaagat tagttatcac cattcttaca gtttagattt 19260
cagcaaatte aaactaatgt agctttgatt tctcattgta tttgctactc tgtcaatatg 19320
acttattttt ttctcatgt tgatctctac ataatatcag cctttgactt tgttgacttt 19380
ctccctactt ctttattttt ccttaatttt actataatat gacatatgca gcttcctcta 19440
atacgtgggt taatttgggt ttaatgatgg accatattga gatgagtgtt tagattgtta 19500

```

```

gccatgcaat attacagtcc tgacataaag acgttgacaa ctgtacattg tccatttgct 19560
accatgagtc ctagataaaa tgtacaaaat cctacaaatt tggccagatt ccattttctt 19620
ggaaacattg aaatcaaatg ttattctttt ctcttttgac agtggatttt gtgtgaccag 19680
gctgttttat ttacacatat ttgcaaattt caaaattttc cttttattca cgacttccag 19740
tttagtctct atgctgggtg ttgtcaactt gttacaaatc tatgcatacc tacaaagttg 19800
gattctcaat tgaaaaaatg cttccatcac atgggcctgt aggaaatcct gtagggcatt 19860
ttattgattg gtgggtgatg ttgaaggccc aaaatcaatg tgggtgatac cacccttaag 19920
ctgggtggcc tggaatacat aagaaaagcaa gctgaaaaag ttatggggag caagtaagta 19980
agaagcacc ctcctatggc tgtgcatcag ttctgcctcc aagatcctat tttgagttcc 20040
tgtcctgact tccctcagt atggactgtg atttgaaagt ggaagacaaa tgtaccctgg 20100
gttataattg tgccttcat ccagcccaaa cccattgctt cctgattcac caagatatca 20160
gaaaaaaatg tagcaatctc ttcccaacac acacacacaa aattagtttg ctttctattg 20220
ctgtgacaaa cccctataac taaaacctaa cttagaaaag gaaagggtta acccatctta 20280
cacaggtcac catctaccat tgagggaagt tagggcagaa tcttcaatca aaaacatgt 20340
atgctatgta ttggcttggt ttttaactca tgcttaacca acttctagt acagcccaca 20400
aagcctgact agggaatgat gagcccacac tgagatgagt catccatc aatcatcaat 20460
caagacattc cccaacagac aatcccacag aaaaaaacat gagctgggca atccctcaat 20520
tgagacttcc ttctaaatg attctaaact gtgtcaaatt gaccattaaa gttgactacg 20580
aaaaaaaaaa tagagactct tcatctgcgc catgtttccc accatgatag gccacacctt 20640
caaaactaggg accaaaataa ggccttcct caattgacta ctgtcaggta ttaaatcaaa 20700
gtaccaaaaa gatatttata tgggtctcta agtcccctct ctagtattaa caacaaacta 20760
tatcaacaac tgtctaaact atcagttgta gtaagaaagt gaaataactc tggattaaaa 20820
gtctctacag ttaacaagca cttaaactt ccagaacaac tgctgtaatt actgttgaat 20880
atcaacctga caggatatag gatcatctat aacataaacc ctttggtata tctgtgagaa 20940
tgcttttaga ttggtataac tgagggtggga aatccctccc taagtgtggg cactactatt 21000
taatggcatt tgattttgta taccctttcc tgcttgatc agaggagtta ggggaaaaac 21060
aaaggggtaa gtgacaaggg gaagaagggg tgccttccc cacttgggta ccacagaact 21120
taatatccat caaagcctac ctgatcagt gctttgagga tcttctttaa tgaatttgaa 21180
gaatattatt tgaggacccc agagggtgga ttatttgtct tgaattgggt acttgggtga 21240
ccagtgggtg ggcactttag agtgagaaag agacatagca gagctgggca aggtcagggc 21300
tttgggtgat aacattatga tctgaaggga ttttgacagg atttatggta attctgaggt 21360
gcttcatagt agtgaatgag agggattaaa actcaggctg acatccaatt tcaggtacaa 21420
caggactgaa tgggacatca tcgcagtatt attttaacaa accaccacc atgaatggca 21480
tggaaaaaag gctggcaagt gaattcttta tggttgccac cctctggctt ggagtattgc 21540
ccatgctgac ctctaattcc tggaaaaaca aaaacttaag aaaacaaaac tagtttccta 21600
ttttcaaata aaaattgaat gacttaetta caagaaaatt ctccccattc taatatttta 21660
tgtgagagtt tgaaaagcgt ttttttcccc attttttatt aggtatttag ctcatttaca 21720
aaatttgat attctttttt ttcttttttt tgtttttttt ccatttttta ttaggtattt 21780
atttcattta catttccaat gctataccaa aagtccecca taccaccca cccactcccc 21840

```

```

ctttttggcc ctggcgttcc cctgtactgg ggcatataaa gtttgcaagt ccaatcggcc 21900
tctcttttgca gtgatggccg actaggccat cttttgatac atatgcagct agagacaaga 21960
actccgggggt actgggttagt tcatattgtt gttccaccta tagggttgca gttcccttta 22020
gctccttggg tgctttctct agtcctcca ttggggggccc tgtggtccat tcaatagctg 22080
actgtgagca tccacttctg tgtttgctag gccctggcat agtctcaca gagacaggta 22140
tatctgggtc ctttcagcaa aatcttgcta gtgtatgcaa tgggtgacgc gtttggaagc 22200
tgatcgtgag atggatctct ggatatggca atcactagat ggtccatcct tttgtcacac 22260
ttccaaattt tgtctctgta actcctcca tgggtgtttt gtttcctatt ctaagaaggg 22320
gcaaagtgtc cacactttgg tcttcgttct cttgagttaa atgtgtttag caaattgtat 22380
cttatatctt gggatcccta aatttctggg ctaatacca cttatcagtg agtacatatt 22440
gtgagagttc ctttgtgatt gggtagaaa agcgtttttt ttcctaggt ttattcatat 22500
taaactcttg gctgtaaatt ctcagcattt ttgccagtg atttgaaca ctttgtgtgc 22560
tgaactgttg aactgtgaat gaatgaatat gaatatgcag gaaacagatt tttgcctgac 22620
atcttaataca tttctcagcc acttaacaag gccaaattca tactgaaaaa caaaggetta 22680
ttggattatc tacattggga agatgaacaa agagatccag taacctacce tcaactacce 22740
ccttacacca cccaccccaa ccctaacgt accccacct cattccctta ccaactgtac 22800
cacatcacca cgccaccatt acccctatcc tcaccctgg taacaaacce attgtcaggg 22860
tcttgacata aggttaaagt agcagttctg gtgaagctgt ggtcccacce atacctgacc 22920
ccgcagagag tctattatcc taaaatgtga acttaaaagc tgtcaaactc tctcagggaa 22980
aaatttacct tctacctagt ctgggtttct ggatttgtct tctctcggga tgatatecct 23040
gaggaaattt cagacttttg agtcccatta tttggatatt ccagaaacta gagggaatgg 23100
tacaaagtcc ttaccctac cccaaggct ggttaaagca tctctctata gaaaactatc 23160
atgggaggct taactctgtg tagaaactcg cagcaaaaaa caatgttttg tctaccctca 23220
aattatttcc atttaaatat ttattacagt attctcatta ttgttttaa aataaaactg 23280
tggttatgta gtggaaacac tgccttaaca actattttaa gatttattgt atatgttagg 23340
tctcaaaact gacctggctg tcaggttctc tcaccatctc taagtcgtta cctgttacag 23400
ggtatggcca actccctaca caaaatttct ctactgggc tgctcttccc tatataatgc 23460
atccattttg atcattcagc cctttttgt ctactgttct tccctcttga gctcttgatc 23520
tcttggtttt ccaattccca ctctccctc tccctctgtt tacatgcccc tgctcaggga 23580
cctgttgact ctggactctc ccagatgtgc ctgctctgc ttatgctctc ctgatatcta 23640
caataaacct atcatctata tctacaataa acctatctat catacctagg agtagtcacg 23700
tctgattttt tattttttca ttcaatatat gcatataaaa tttatttcag tgcctcaaaa 23760
gacgatggag taaacatggc tttgtgactg gttttacatt tatatttagg aatatgtatg 23820
tatatacata tatgcatgca atataattca tttgaaatgg ggcatggact tgaaagagag 23880
caaggagggg tatatggaag ggtttagaga gaggaaatgg aggggcaatg atataattat 23940
attattatta tctcaaaaaa ataaaaagga gattttaaaa gtaatacaat attggaggtg 24000
gagtgaagaa ccctgttcat tccccagcac cctggtgggc agcacacaac cacctgcaaa 24060
tccaatgcct atggatccta caccctcttt cagacttcac acacacctgc aaaaagaaat 24120
aaatggccca cacataaaaa agaaattcaa ctttgaaaaa gtagtcccac attagaaaca 24180

```

```

tttttaaaca caccttcttc ctggaatcac tatgtcacct tttatctggt tttactgaag 24240
aactttcatc aatgcatcaa taacatttta ttaatgtcat aaaatgaata aacgccttga 24300
actctaggaa ggaaggaagg aaggaaggaa ggaaggaagg aaggaaagga gggagggagg 24360
gagggaggga gggagggaga gagagagaga gagagagaaa gagagagaga gagaaagaaa 24420
gagagagaga gaaagagaga gagagaaaga aagagagaga gagaaagaaa gaaagagaga 24480
gaaagagaga gagagaaaga aagagagaga gagaaagaaa gaaagaaaga aagaaagaaa 24540
gaaagaaaga aagaaagaaa gaaagaaaga aagacagaca gaccaaagca tatatttcag 24600
gaaggggaat gcaagtgcc aatcagaggt cacagaggga aaaaagatca ttggtataa 24660
atgaaaatga atgagttggt atctggcctg gctgtatcca ttccactggt tagaaacaaa 24720
actgaatgtc accatagact gtaattgtaa caaccettca cttttggcat caatctcact 24780
gtaagaaatc cacattggga ataaatcaat tcaggaagtg tgagtccctg aagggaatac 24840
taggacccca gtatcatttt tcctctctct ctctctctct ctctctctct ctccctctct 24900
ctctctctct ctctctctct cctacacaca cacacacaca cacacacaca cacacacaca 24960
ctttcagtca tttatttatt gctagaacct cctgtagttc cctgtggcct ccactatgta 25020
actgagcatg accttgaagt cctgaattcc tgacccttc cctgcctat gcctctcata 25080
tactgagaag atggatgaga cacacacacc agaccttgac atttattatt attgttattg 25140
ttgttcaaag tctgactttt atgtaattta catgatttct ccttcaatag ttaaatagga 25200
aattactgat tccaattctc tatcattaat tcaattactt ggaagctaata gctaaacagc 25260
acatgatagg aatataatatt ttgtgcactt gtcagcatgc acctaacaaa aattgattac 25320
cctgtgtagt gatagctttt gtactggctg gttttgtggg tcaactggac acaagctgga 25380
gttatcacag agaaaggagc ttcagttgag gaaatgcctc catgagatcc agctgtggag 25440
cattttctca attagtatc aagggggaag ggtcgcttgt ggggtgtacc atccctgggc 25500
tggtagtctt ggggttctata agagagcagg ctgagcaagc caggagaagc aagccaataa 25560
agaacatccc tccagggcct ctgcatcagc tcctgcttcc tgacctgctt gagttccagt 25620
cctgacttcc tttgggtgatg aacagcagta tggaagtgt aactgaataa accctttcct 25680
ccccaaactg cttcttggtc atgatgactg tgcaggaata gaaacctga ctaagacagc 25740
tttatagaga tcttggcata gaaactggaa ttttagaaga aaaaataagt ggaatgggtt 25800
aaagtttgac cttcaagtgt ggatttctgc ttactctta tctcagcaaa gcaaacacct 25860
ggcagaacct tccagaagga gtgatgggca cagctacctg aaaagattct gtttgcttag 25920
aaaggaattg ttcctttatt gttccctgcc agcccagtc tggaagcctt gataacaaat 25980
atttgtacat ttttattggt ccccgcaaaa tcatectctc ataactgcag atcctgtcaa 26040
catgcctgcc agatggcaga aatcacctat catgtgacct ataaaagctg tgagaaatta 26100
tggggtgttt gggaactttt caaagcatca gccagtcac agctacaaaa tttcttgtgt 26160
ctcccagggc ctgctgggtt gattcgtggt tggagtttcc catagcagca cacaagtgga 26220
aaatacatat tggtagaatc acctcattgg tgtcaattga tttcataaga aaaattaaca 26280
gtcacaataa gattgggtac tttcaaagtt ccctatgtcc aaatagtatc ccattgtact 26340
ctcagaacaa gtgaacattg caacctttat ttcaaaagat taatattcta attatgttta 26400
tatctattat atattgtatt atacacacac gtatgtacta tgagctttat ttttacactt 26460
ttatttttagt attaatgtg tatatgtgtg tatatgcaat acatattata ttacacatat 26520

```

```

atatgtacat tacaattttt attttaaaat ttttcatttc agttatatgt atatgtggag 26580
tggggcaggg tgggcacatg tgagtatagt accatgagag gccagtagag ggtggtgagc 26640
ccccaggatc aggaacaaca ggtgtttgtg ggcttcctgt gtaggtgttg gaagctgaac 26700
ttggtcacct tttgttggcc ttgcttgtgg gggattacat gctacacttt gctggaggaa 26760
ttacatcagt gggggagagc tatttgagat tctgaaacat tcagcaagtt ctgtttggtt 26820
ggagatggga gctctcagct ccttgttggg gccaccttgc cagccccctt ctgctgtact 26880
tgtcccttat gtgtgcttct gtcacagcca tgccccccc tcaccactat gcttcctgt 26940
gccaacgaac tcatcaccct ttggatcttaaatgcataag tcaaaatatt tcttgcatc 27000
actcattttg tttgtgatat cttgtcacag caacagaaaa ctcttattgc ttaacactaa 27060
gctacctctc cagccccctag aggttttttg tttggtttgg cttttaatat cttttttttt 27120
ttattttatgt gtaggggtgt gtgctgtgtg gagttttccc ctttaattt atttatttat 27180
tcattttaca tgccccctc cttgtcccca ctacatctgt ctcttcccca tccccctcc 27240
ccttctcttc tgaggccccct ctgggtatcc cccgatctg gcacatcaag tctcttcaga 27300
gctaggtgca tccactccct ctgaggcaag acaagcagct cagttagggg aacaggttcc 27360
acgaagattt gagagaagga atgaaggccc taaaggggat agaactccac aagaagacca 27420
acagagtcaa ataacttgga ccccgagagg ctctcagaga ctgaaccacc aaccaaagat 27480
cctacatgag ctggacctag cctcccccc cccaccccc cacatatgta gtagatatcc 27540
aatcggact tccaatagga gctgtcccta aagctgttgc ctgtctgttg aatctgagag 27600
attagttttt tgttttttgt ttgtttgggt gggttggttg ttgttttggg ttttttggga 27660
ggattggggg gctgtttgtt ttgtttttg taccctgaaa gttcttcaat ggaatagtcc 27720
tcagtgttgc ttctatttca ttcatgtct ccacaggett gcttttgaaa ttacatgtat 27780
ttttccatt ttcttctctc taaatttgag tcaatttctg gtatcagcat gtttgaaaca 27840
ccaagcagaa taatgtgtct gctttatttt atattttgtc gtacttatgc acatggaaac 27900
acacacacat gttatgtgct caattattgg aacaaatgtt ttcctttttt atctactctc 27960
actatgtgac cctttatttg tttcaagtaa ataaaataac aaactgataa tcaaactaat 28020
aaaactgtaa catttacaga tgatgtcatt atttgcata tctaattctc atggaaaagg 28080
tgcccctttt cttactaatg ctacttacag gtagacactc ttagccaaaa ataatccgga 28140
agtgaactg cctgccaaaca caaaccactg atgactgata agattcctga ggattaggaa 28200
aaccacacgg ttcttacagg gaacaactga ttcttcagag actgcctaag aaaacactga 28260
cacatttgca gaaaagctat tgagttggat aaaagtttta caaatgccc acaatgaatt 28320
ttaatactaa acctgcaaaa gaaatatgct aaggaaatca cacacacaca cacacacaca 28380
cacacacact accaccacca ccaccaccac caccaccacc accaccacca ccacacaaat 28440
aaatgcataa gccaaagtcct gagggcctgg gatatcagcc ccaaattcag taggctgggt 28500
aagaaggaag ccaggactct gttttaagat gaatttcttt caaatccac aggaacacat 28560
catgcataac acatcatgtg ctatatcctg gccctggggg tgtggagtgt ccaagaagga 28620
tgcgaggagca caggttatga ttaattatct gagcatatca agcagcaaac tcagacactc 28680
cttctcttc tgtcttccaa aggatgtttg tttcgggaca ttttctagaa agacaggtac 28740
caatgtatat tgacagatga ggcacaccaa tgatagtcaa aggaaatttt tcacatgagt 28800
ctttctgggt tgacttacag gaggtgttt tccaccatca catatggaat gtttcacttt 28860

```

```

ctgccatttc acatcagtaa atataaatat tgatgagtgg gcgtccttcc ttcaagacat 28920
gcatttaatt gggttttgat caaatgttca ggcactggga ggaagccagt ggcacaaag 28980
ttgtccacaa acccaacatc aactagggg actagtgtga aaactcagta aaagttgccc 29040
aagtcagtga tctgttgttg ttgttgttgt tgttgttgtt gttgttgttg tcatcgtcat 29100
ctttggaggt ggtggtttgg tttggtttgg gagtgttgtt ttattttgtt tgagacagag 29160
tctcacttca tagctctgac tgatctggaa ctcactatgt agaccacact gaccctgaat 29220
ttggagagat cctgcctgcc tctgcctcct gagagctggg attaaaggca tgcaccactg 29280
tgacatgcaa gttaattttt ttttaattata tttttctac aactaacatt catcagtgtt 29340
tcagcctgga aggaagaaaa cttgcatgca atcaatgttt taattgaaca agaacatatg 29400
caaatggcac aggcatttct atcatttgga tttagaagaa aatcccaaga tgatgttgca 29460
gttttcccac ctcagctgtg aacacttact attcgtgatt gagtctgcag gcagttggcg 29520
ggcaaaagcc tgtcaggggt attattagcc ttcataccag atcataaaga aggatttgcc 29580
aaaaatccta gtttccagaa gagctctgtt gtaccaaggc agtggagcat cgccacctta 29640
cgactgtacc ttgcaatgca actagctcgc acaaattaca aatgctattt attgattggg 29700
gcagggaggg gaaaaaaggg gagggcagag gcagactgtt ggttggtttg gttgggttgg 29760
ttggttggtt tgttggttgg tgatttttca agacaggatt tctctaacag tcttcgtga 29820
cctgaactcc ttctgtacag cagtctagcc tcaaattcac agagatccac ctgcctctga 29880
ttctccagtg ctgggctcaa aggcaagcgc cactactgcc tagcctgtgt tgttttttgg 29940
ttaagcaaaa catctttaa tgtctagatt agatatccag attaaatgtc tagactaaga 30000
tctctaaaca ttttctaata taaattttat cagttgaaac ttgtccactt ttatgggatg 30060
ctaaggatgt atggaactca ggactttgtg cattcagtc cactgtctgg tagacactgt 30120
tatgtctgat attcctaata gggagcagcc aaaaacaaaa acaaaacaaa caaaaaatcc 30180
aaacctcaat tccttaatta attaatatt taatttttta gaactaagat ttaatcagga 30240
aagttgcatt atatgcatac ccctggttat tcaggtaagc atagtaagaa tataattaaa 30300
agttgtctgc acatttgaat ttagatggat atgaaagtgt ttcagatttc ctacttaagt 30360
aaagtgaac aatattgaaa tttttcgaag gttgttactg tgggatcccg ggtccacaga 30420
cacataaaat aaatctttga aaaaataata ttaatattta gtaatgtgac atgaaattaa 30480
attaaaccaa tgtttttcct ctggcaagaa acgcagaaag taaaaatgat acattgtatt 30540
cgtggtaaaa atcctaatac catttaatcg atacacattg catccattat gatttgcagt 30600
cattaataat aaaaataatat tattaagcag caagcaaata gtcttaaagc agcacgtagt 30660
gagacctcag agctgttaat ttccataata aagaatacac ttcccaggaa actttacggc 30720
caggccaagc acttccggaa ggagggacta cgggacggca ataggaccct tctgtaagaa 30780
aaggggagaaa tgtggcttca aaagaaacca tacttattca tgtgagtggc gatttgtcac 30840
atgtgtgtga cgatagccaa tatgtctgaa gagaaagacc ggttgtggcg ctaactgggg 30900
ggacctactg cctccctgta agccttcctt acaaggetat ctcggcgcaa ggaatgctgg 30960
aaagtgtagt gatttggctg gaaactacca gctattaagt aaaatcgcgt catcaccccg 31020
accagttctg ttccaagcc tgetgateta gacettatcc cacctccgtt cctgctccat 31080
tctgagccct gactgtgaag gtttcaactc cttcacttac aggagcttta gggaagaagt 31140
ctccacagg agctgagggt ggggggcggg cggtctcctt cttctggcct ctatcggtac 31200

```

```

tgcaaggagg ggccaccaat tacatgcaat ttttatgcc a cactaagatg cacaaataaa 31260
taaggccaga gattccccag agtcaggatt tgaggctttg gggaccaatg agagttgttg 31320
gattgaatgc aaaatgtaca cacttggaaa caagactggg caaggctgca ttttctagtc 31380
tgcagggaga cctgaaaagt tagtagaagt acatgtgtgt gtcagttcta aatgaaacga 31440
cgggggacaa atgcctgagg tgcctgttag cataccaaag cacatgatgg cctctagact 31500
cacttgggac cgctgactat gctctactct tctgatctgg ccccataact taatccaagc 31560
cagaccttct cctagcatct tttacctata taaccagcca tttaggccat gctcccactt 31620
ggtcctctca gtctcctctg ttccctctct tttcttcttc tcttattctc ctcacccttt 31680
ccacctctgt cctctcatgg ctgggttcag tctactgtcc aggttttagtc cactactttc 31740
tctgtctctg actcttccag aagcctctgg ctgttcttat ccgtacctgg gaggggccat 31800
accctcatth gtacagtatc ttctctcagc gtctcctgt ggctgacct ggaggccttt 31860
atgctttctc cctggaaaaa ttctaattgg gggggggggg ggaatccagt ttgttgcaat 31920
gaccagacag ctgaaggggt ggtcaaggg ccggggcata ggtcattgaa atatactcag 31980
ggctactagg agtggcagtc agtgttcaag tacacaggaa gcaactttct ctgcaaaggt 32040
ataaagaaaa gtaaaaagtt ttgaaaaagc taaaaattta aattaaatta aagacaatca 32100
tctgggcagt gatggtgcat gccttaaaaa ccagcagatt agggctggag agatggctca 32160
gcgattgaga gcactgactg ctcttccaga ggtcctgagt tcaattccca gcaaccacaa 32220
gatggctcac aaccatctgt aatgggatcc agtgcctct tctagtgtgt ctaaggacgg 32280
ctacagtgtc ctacataca ttaagtaa ataatagattt aaaaaaaaaa ccagcagatt 32340
atacatggga gacagaggca ggtgaatctc tgagttcgag gccagcctgg cctacagaga 32400
aagttccagg acagcaaagg ctatacagag aaacctgtc ttgaaaaact aataaattaa 32460
attaagagga caacaaaggt gagctgagtg ctttctgggc cagtgagtc aggtcctctt 32520
accctctgaa ccacatctcc agtcccaa atacctttag tttctactcc ccaggaacat 32580
aaaacaagcc ctggacctta taaaaggtgt caggagataa gagcagccta aggtctcttt 32640
atttctttcc tctacactcc tggaaaagaa agggtagcag gaaagccagt ggtcagataa 32700
aatacaaatt gtcagattaa aatcttaatt ctggttgtat ttattttaca ctctctgagg 32760
actcattgcc ctacagtatg tttggggact agaaaggaaa tgaaatctca gtgtcagtag 32820
cccacaaaga gacagaagca aaagtagttt gcaaaggaca gtgagaaagt cctctgatgt 32880
tctctccctc tccctttcct tctacctct tctttctgca ttttttttg acccagctcc 32940
tgtgacccc atctccaacc ctttgatcca gtaggacttt caagttttct gaacagtgtc 33000
caaagaaaac actttacttg tggttttcca tatectctga ggtctggact ttctgtcccc 33060
agccagcagg tgggtgctgt actacagctg gaagcaaagt tcccaaacg tagctgaaca 33120
cctgggaggc tgattgactg gtagtgtgtg gagatgtgca gatttggaat cctgagagtc 33180
cagagcctaa ttatgattc tcttgacaa ttttcagctc tctagataga gtccctaag 33240
ccacctatgt cagacctgac gtctgtgac taacagattt aaaaaacaa caaaaataaa 33300
acattttttt ttgtctgtct aatttgatca aattgttctt tcacagcaa gggcctagta 33360
aaagcaagga cttctggctc tgettcaccc acctggetta atattccac tcatgtattt 33420
tgaaaagaac cttgattgat gttcctataa aaacttcag aaactgtgtc tatgtccctc 33480
catgggattt ggggatgcag tttaccatgc cttaccgcaa cctgatgtgt ggaaccttca 33540

```

```

aactgtggct taaaacaaac tcttctttcc tttaaagtgc ttgactcaag tattttgtcg 33600
aagcaatgtg tagggtaact aatacccttg gatagattaa atcagtggaa atacactctc 33660
tgtcactgga tgagaacgtg cttttagcaa ggctcaatgg catctttcat cctaccagc 33720
acttaggaag cagaggcaag ggaatctctg agctcctggc ctgcctgac tacataaagg 33780
atttcagtcc ctgtgacact tactcaataa cagtgcagg agagaatttg gttcccagga 33840
acttgagat gggggcggga tattggagag gttgggggag gatgttgac agctggctac 33900
catgtgagtt ccaaatttag gtggacagt atagaggggg gtattccatg cccctctac 33960
atttccatat gtgcacatat gtgcttatct aaatgagtc ttttattact ctttgattcc 34020
catttcccaa tttccttcta tcaagagagt aaagacaaaa aacaaatcca ttattttttt 34080
tgtgtgtaaa ttcttctgct catgaatatt ctatgtatit tagttcccta aaaacaaaac 34140
ttcattaaaa attttgaaag ctgccataa ttttttgac atagaggaat tcaagttata 34200
cattcaattt tacattttga ttgcatttta aagcatggga ctactgcagc tcaaagcagc 34260
tgcaaacttc aaaccttcct gcctccaact cccaggcact gtttacaggc atggagctcc 34320
attattggat atagaaacac acaaagagaa acatacacac agacatacat acacacatat 34380
aaaataggct ttgctggaag aaaataaaca agaacaaaac agtgattatt cagtttggtc 34440
aggccaagt tccaaggcta tacacatctg tgacaagaat ttcagatata aacatgtgaa 34500
ggaaatttta taggtgcacc ttttttattt atttttgtta gatattttct ttatatacat 34560
ttcaaaagct atcccgaag ttccctatac cctccctcca cctgctccc ctactcacc 34620
actccactt ctggccctg gcatttcct gtactgggac atataaagtt tgcaatacca 34680
aggggcctct ctttccagt atgaccaact aggccatctt ctgctacata tgcagctaga 34740
gatatgagct ctggggacac tggttagct atattgttgt tccacctata gggttgcaga 34800
ccccctcagc tccttgggtg ttttctctag cttctcctt gggggccctg tgttccatct 34860
tatgactgtg agcatccact tctgtatttg ccaggcactg gcatagcctc gtacaagaca 34920
gctataacag gggctcttca gcaaaacttt cctggcatat gcaatagtgt ctgggttttg 34980
tggttgatta tgggatggat cctgagtgg gtagtcact ggatcctttc gtcttagctc 35040
caaactttgt ctctgtaact ctttcatgg gtattttgtt ccctattcta aggaggaatg 35100
aagtatcttc cctcttcttg attttcttgt gttttgcaa ttgtatcttg ggtgttctat 35160
gtttctggac taatatccac ttatcagtga gtgcataatc aatgacttct tttgtgattg 35220
ggttacctca ctgtcttagt cagggtttct attcctgcac aataatcatg accaagaagc 35280
acctggggag gaaagggttt attcagctta cacttccaca ttgctgttta tcaccaagg 35340
aagtcaggac tggaactcaa acaggtcaga aagcaggagc tgatgcagag gccatggagg 35400
gatgttcttt actggcttgc ttcccttggc ttgctcagcc tgctctctta tagaaccaag 35460
actaccagcc cagagacggt cctactcaca aggggccttt ccccttgat cattaattga 35520
gaaaatgcag aaaaatcaaga atttcacaca caactatgac aggcatttca tacacataca 35580
catatgacaa gaatttctct ctctctctct ctctctctct ctctctctct ctctctctct 35640
cacacacaca cacacacaca cacacacaca cacacacact cctgtgacaa gaataccata 35700
cataaaactc tggtaggaat ttcacataca aacctgtgac aggaatttca catacacaca 35760
taccacaga catctgttaa atgaatttta aacacacatg tgaccagaat ttcacacaca 35820
cacacacaca cacaatcacc tgatacagga gtttactca tacaactgtg acatgaattt 35880

```

tatatacaca	cgtatctgtg	aaatgaattt	tacacaggta	catgtgacag	gaatttcaca	35940
cacacacctg	atataaaagt	ttcacacata	tacatgtgac	atgaatttca	catacacgca	36000
tatcagtga	attaattttg	cacacacaca	tgtgacagga	atttcacaca	tacacatacc	36060
tatgacaaga	gtttcacaca	caacactgca	ataggaaatt	taacacccat	acaaaacagt	36120
gatatggatt	ttatacacac	acacacacac	atacacatgt	aacaaaaaat	tcacacacaa	36180
aactgcaaca	ggactttcac	acacacacaa	agctgtgacc	agggttcaca	cacacacaca	36240
cacacacaca	cacacacaca	cacacacatc	tgtgaaatga	atgctacaca	catgcctggt	36300
accagaaatt	cacatgcaca	cacatacaca	catacctgtg	atgggaattt	cacacacact	36360
gtgacaggaa	tttcacacat	atgcacaaac	tectatttca	ggagtttcac	acacacacct	36420
gtgacacaaa	tttcacacac	atacacacac	acacacacac	acacacacac	acacacacac	36480
acacactgtg	ataggggtgt	taataagtag	ctagctagat	ggatagttga	atgatgggtg	36540
ggtaggggtg	tgtactgatg	gaaagatacc	cagagggtgat	gaattgacat	ccagagggtg	36600
acatatggat	ggaaagagga	aggcatgaat	actgaacaaa	tggaagcatt	ggtgaatgga	36660
tgggtgtatg	aatggatttg	tcgtgcatgt	actggtagag	ggtctaatga	gtgtatatat	36720
gagtgggtgg	ctggctggct	ggctgaatga	gtgagtggat	ggatgggtgt	ttgggaggat	36780
tgtaaagtt	ccttttggtc	tcctgatata	actattgttt	taaaggctta	ttgcctccat	36840
ctgctaacct	aagcctagtc	ttggaagctt	ctagcctcca	tacaatctta	tctaggccta	36900
gaatcttttc	aacatttgag	acttgctgct	gaatatgctc	accttttcta	gttatttctg	36960
aactcctgct	agctggtcaa	ttcagcagtt	ctggctcaga	actcttttcc	atgctaactg	37020
attcaatctt	gcttctcttg	gcttctcttg	aatttctcta	cttggcctca	taataacttt	37080
ggcaatatgt	tctatacaga	agtatatggc	tccttctcat	tctctgactc	attctgtctt	37140
ctcctgtgtc	ttgcttggtc	tctctctctc	tctctgcaat	ctgcctctgt	acaactgtcc	37200
cagtaaaact	gcctccttcc	tccccctcc	actctctgca	ctgctctctt	aagtagcttc	37260
cctttcttct	ctcttcttat	aggatatgtt	acttctcctc	acaaactaac	tttaccttca	37320
ttgtttggga	ttaagggtgt	ataccaaggg	catgtctata	ttccagcaag	ggggattaag	37380
ggtgtgtgct	aagggtgagc	cacaccacaa	ctagaaacag	gtttttccag	ttaaataattc	37440
aatcttgggt	ttcccagtg	gatcaaatat	cctacaacag	tgaatggata	gtaagatggg	37500
tggatggatt	ggtggattgt	gagtagatag	atgaataggt	gaatggatgg	ataggtggtt	37560
ggataggtgg	gtgggtgaat	gaacaggtca	tgtattgtgg	atgtgtggat	atatgagagg	37620
gtggatagat	agatggatgg	atgggtgggt	ggatggatgg	atggatggat	aggtggatat	37680
atgtgtgagt	aaatgaatgg	gtgggtggat	gaatggatag	gtggatatat	tggtggatgt	37740
gtggattagt	ggtagatggg	tatgtggaca	catggataaa	tggatggatg	gatggatgga	37800
tggatggatg	gatatgtaga	tggatgtata	aatggatgga	taggtggatg	gattgatgga	37860
tgtgtaggtg	tcagtaaatg	gatggataaa	tgtataggat	gatgaatgaa	gggtaaacgg	37920
atgtgtgggt	gggtggataa	ataggtgtgt	gtgtgtgtgt	gtatgtgtgt	gtgtgtgtgt	37980
gtgtgtaggt	gtttggatgg	atgggtggatg	gatggtttag	tggattggtt	gattgtgaat	38040
atgtgagtga	attgatgact	agatgggaat	attgaagttt	gaataaatgg	atggatgggt	38100
ttatggatga	atggatggat	aagtatatgt	atggatatat	atatgtgtga	gtgggtggat	38160
ggatgaatgg	atgagtgaat	gggtgagtgg	atggatggat	ggatggatgg	atggatggat	38220

ggatggatag gtggatgagt tggtagatat gtggatgtgt gagtggatgg atgaatagat 38280
 ggatagtga tggatgggtgt agtggctatt cctggttgtc aacttgacaa tatttgaat 38340
 gaactacaat ccggaattgg aaggctcacc agtgaccctt atctggaggc ttggagatcc 38400
 ttatctggat cttggtttga agatcttgag ccatagtggc tatggattcc agaagattga 38460
 atctccgagt ttaaggaaca cacccttaat ctgggctacg cctttcatct gggattaaag 38520
 gtgtgggtgga acacaccttt aatctgggct ccaccttctg ctggagacaa tataaggaca 38580
 ttggaagaag ggagtctagc tcttgctctt gctcctttgc ctgcttgctg cgtgagactg 38640
 agtaactgct agatccttgg acttccattc acagctgcga ctgaacaatt gttgggaatt 38700
 cggctgccga ctgtaagtca tcaataaatt cttttactat ttagagatta tccataagtt 38760
 ctgtgactct agagaaccct gactaataca gatggataag tagatggatt gatggatgga 38820
 tgtttgagtg ggtgggtgta tgtatgggtg ggtgggtgga tggatagaag aatgggtgta 38880
 ctgatggaga atatgttcat caatgttget ttgtaacaac ccaattgta gcttctattc 38940
 aacaatgtac tgctttcttt gttcccaagg tcatgcetta tctgtgatgt tcaaatgaa 39000
 ttcacagcca gatcttaact tcccatggcc gactgtgagc accaaggatc ttaaatcact 39060
 gacaccacat tccttgaacc ttgacctga aacatcctgg tatggatgtg acatcagctc 39120
 agctgcaatc aggactatat gagagggaac tgagaatgtt cttttgtaga gcagagagac 39180
 aatctctaca cagcccat gaagaagaaa gtggagaaaagg gggaggcaga aaggaaaagg 39240
 gaagagggat ggactgaatg aagggaaggg aaaagatcag tagggagact acctccagag 39300
 gtggttcaac tacagaagca cagcacagaa gtctctgctt caaaaataga attgtttgca 39360
 aactcgttcc tctttctcat ttctccaaaa gaaggagggg gctggaatca caccatggt 39420
 ttaatgctaa ccaggaacaa tggagtagat gctgctaaaa gtgaaggacc tgctacaact 39480
 tctgagaaac tacaaagtca caatcaagta ccctaagctt ggccctggatc acagggtgct 39540
 tctagaagtg tgactcttct aaaagattct acttcataca aggccgtgac ttttcaaatt 39600
 cacccttaat ttgaagggtt ggttttatgt atttatcatt gtcagttctt tatccattta 39660
 cttaattttt tgttgtgttt atttctgggt tttcaagaca gggtttctct ttgtgtagcc 39720
 ctgcctatct tggaacacac tctgtagaac aggctggcct cccactgaaa gatcagcctc 39780
 ccaagttctt gtcttacagg attaaaggca tgcaccacca ctgactgggt atttaaatat 39840
 ttttaagatt ttttaaaatt gtatatagtt ttttccata atcactgtgg gaggtacatg 39900
 gggttcagat tttggataac acattacaaa atctaccaca ggaggatact ccctttgagg 39960
 aggcagatgt tttctaaaga aaagtattta tttctgtcgc ccactgtcca gtcagactca 40020
 tttaaagagg aatcaattga caagaaaact aactgtgcag gggctctggcc agaagagggt 40080
 cacttgaag gttctgtgaa aggtgagtc aacaacagga agttgatctg tgtggtttga 40140
 gatagcatct ggccctggcct catagcagtg acaaacattt cctcaaaaaa gatactgtga 40200
 gaatgagtta ggttgagtga gaaagctaat accaaaactc acctattatg atttattctg 40260
 taagagtaaa catgttttta ataaggaaaa aataaaaaag ttgtggagaa caaaaaacaa 40320
 ccagcacta actaaacata tttcctgatt ttaacattca caattttggg gccagctagg 40380
 tggttagga ggtaagagt tttgtgacca agcctgggaa tcagagtcca attctgttgt 40440
 cccatccaga agctgacttt gatttttact tttatgtatt gttatggcat gactgtcaga 40500
 ggacagcttc attgccatca gctctgtctg tccagcttcc catggcttct gaaaattgaa 40560

ttcatgtttc caggcttgag tatagtctta ggatatctaa tattgaaact ttttcttttt 40620
ttttttcact aaaaaagtga atttagcttg tgactatgtc ctgcacttt cgagtgtgtt 40680
gagtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtacaccttt tctcgctgta 40740
tcaagaatct aaataatttt ggcattttct gccaccact gtaaggatca caccaaggtg 40800
aggaatttct cctcttccaa tccaagcaca catttctgca attttatcaa aactgtttat 40860
cattattgga ctgaagttca tcaaacttca cctcctatc cctcatctg agcagaagca 40920
atgtgcattt ttccttattg tgtttgtttg tttgtttgtt tatattttgg attttcgaga 40980
cagggtttct ctgtgtagca ctggatagtc tcaaacttgt agaccaggct agccttgaac 41040
tcacagagat ctacatgtct ctgcctcctg ggtgttattt tctttagatt ctgcaatatt 41100
attgtaaaca cttcccaggt agggaaactca aacttaaaaa ttcgtttaca atttcctcat 41160
aatacacacc tataccctca gtagaatttc atgtagtgtt ctttggggat ttgggtgggt 41220
tgctttgttt tatttttctg tcaagagaca aggtctcacc atgcagcctt ggctggccta 41280
gaatttacag aaatccctct gtctcagttt ccttagtget ggctcacag gcatgcaata 41340
tgcacctttt agcaagtttt taagtgaggg tctgtaaagt ttcccaagtt tacttagttt 41400
atagtccttg accctggcct gcagccacca agtagtcacc tgaaagaaaa gaaaatagaa 41460
tttgcagcta tttttcatga gaaaccaagg tggatatctgc agagatggag actgagtcac 41520
gaaaaggaga tagagttgcc acagagaagg ttgctgcccc agggaaactt actctgctga 41580
gctccatgct gtgaccctga aaactagagt ttcacagatg atctgagact aggggatatg 41640
ttcgagtgtc ttcaaggatt gtcccaagt aatccatagt aaagcaggga taatccatgg 41700
atctaaaagg aaacaacagg tgcccatcca gtcatgaaat agttaatatc cagacttgta 41760
aaagcaggaa gtctctagac actaaacgaa tgaatgaatg aatgaatgaa tataataaaa 41820
gtatgtatgg ggctagagag acagcttggc aattacaagt acaacctacc tttgcagcca 41880
acccaaattc agttcccagc acccacaagg aggettataa attccacaac ttcagcatcc 41940
agatctccat ggtcaatgac ttctgacttt tagaaaacag atccaacttc cagtgcata 42000
aactctgaag ctttaacctt cctggctgtt ttgttttcca ctagaacctg tgactgaagc 42060
cctactacaa cacaaccccc accatacata catacacaca cacacacaca cacacacaca 42120
cacacacaca cacacgtaac ttgatccctg actgaaagca agttcttact ttcaccagag 42180
tacttgagct ccaccacct cctcgtaaat cacttaactg accacaagaa aatccaaatg 42240
ctttgttgac aagatgcac tatggacact acaacaaacc cacaaacct tcttaaacat 42300
agtttttaag tctacagaag attcgtatct cacttttccg aggetatttg gagctaggct 42360
atactcacta ggtagtgctt acagctcagt ggcaaaaatg cttatagcta ctaggataag 42420
gtgttcaata gctcagtgga taggggtgctt gaagattagt gagtaatgtg cttgtagctc 42480
agtgtcttag ttagtgttct attgtgcag taaaacacca agaagcaagt tgtggaggaa 42540
agggettatt cgtcttacac tttcacaactg ctgctcatca ccaaagaag tcagcactgg 42600
aacacacagg gcaggagcct agaggcagga actgatgcag aggccaaaga aagatgctgt 42660
gcaactggatt gcttctctg gtttgettag catgtttct tatagaacce aaggtacct 42720
gggccctccc cctcttgatc actaattgag aaaatgcctt acagctggat ctcattggagg 42780
cattgcctca actgaagctc ctttctctgt gatctctcta gcttgtgtca agttgacaca 42840
caaaaccagc tagtatgctc agttttagg gtgcatacct agcatgcagg gagtcatcag 42900

```

ttcagttctc ttagctttgt gggccaagg actgaactca ggccattagg catgatgcaa 42960
gtgccctttac agaccagcc atcagaccgc atgtttttaa tgctttcaga tagcaccag 43020
gtgggtgtac tagcacacat ctggaatctt aagaatcttc agcctcactt aagaagctga 43080
ggctgaagaa ctctgcatt tgacatcagc ctactgatg tagcttgtgt ttcgatttct 43140
tgccgtgttg tgtgacaaac tccctgacca acagcaaaag aacatgactt ttatttgaaa 43200
acaagaaccc tctgaagctc acttgcaatg tctactgcaa atatagaaac tgaacaaagg 43260
gtagaaagca gcagcatttt ccgaaaatc actgataggg aagagaaacc catccacca 43320
tgaggagaaa aggggccact catgagtcac tcagaatctg gaagggactg aaagaaccct 43380
ccctggggcc tgacaaggaa gcctcataca ttgtgtgcta cctaagagtg cctgcacat 43440
ctttagcac accctgctctg tgccattttg gateccacc ttagattcaa cccaacctgc 43500
accatcttag atctgateca cctgggtca tcttgatgt cattcactct gggccactct 43560
gggtctaata ctctacaaa caagctccca gtgtcttacc ctctgagcta gaagaactct 43620
actcaatgag tcacaaatac tcaactacaa gactctacc tactgagccc catccctagc 43680
cccatatcca accttgact gccatgttt ctttctattt attttctgt atttctacct 43740
gttaggagca gattccttg caccatgaat ctttgtgtgt gtgtctgagg cagtttact 43800
tcagttatca gtgacagttg gtttttaaca aaccagctct gcctgtcaga gtttgaggtg 43860
ccaataaata atgcacaggg tcatgacctt ttttcagcc aaagcacatg ctgctttcag 43920
gtgcatgtgc aagtgtgtg aaaaaaaaa gctccacct ctgaggccct gaagccatgt 43980
gatcagcaat catcaagccc atgatgtcag cagagcacc aattcaagag gcctgagtc 44040
acaagattgt ggggactaag tgatggctat gtgggaacaa aacaagactg cagagagcaa 44100
agcatgaaaa aagagacca ctatgtgat agggggagga gaaatcacag tcacagtgga 44160
gcagccctag atactgagtc tgcagcactc cctgggtgt ctgcctgaca tcacctggg 44220
tttctggagg atgatactg ttagggcaat ggcagacct agggtgagt gtaatgtgca 44280
catgcagaag aaggtgggca gaggagcaca ctggaacaat tctggccatc ctctgcctt 44340
aggcacatgt atatatgctt catgtgggct tagagattcg aactcagatc ctaattgcta 44400
gagcaccat tctcatagag tatctgtctc atcagaagat caatgtttgc agagtgaat 44460
aaatgctttt tgttgttgag atgtttacca aagactgcat ggacatgggt ttgaggcaat 44520
agaaattctt tattagccag ccagagacta catttgggta cttgggttcc aagtgtacct 44580
taagcctttc tcagggtgag cttttaaaac agaaactatg ttctaggttg acatgtttta 44640
acaagaacaa ttagccagaa gtggaactac agaaacaaa atgcaagctt agtagattta 44700
gaaactttcc cagaactaag ggctttgatg gactagtctt ttagttttgg taggtggcgc 44760
tgtcttcatt ttgagtgtta taacctgaat gatacttcca tcatggagtc agctgtataa 44820
agtctggggg tctactaagg tctgggatca ggctacagtt ttgtcatagt gtaacaaac 44880
tcaaaataat agcaggctct gtgcattctg actagtggag tatcaggtcc tagcatgtgt 44940
ttattgaatg agaaaaatgt ctcaatgtga aacaataaaa aaaaataata ataaataaag 45000
cagccagcag actttcttgt tgccaaggtc agtgtacttg ccacctacgg gcatcatcgg 45060
ggcaactggg tccgaatgga tggccccac ttcattctg acttggggcc ctattggccc 45120
tgtgtcttct aggaccagt gcctcaaagc taggagcggg gcagtgcagt gagcatgcac 45180
tgagcagccg ggagaccaca ttctttgcat tccaggtca gggaaacacc gccctcacct 45240

```

tgcagggtggt ggctgcggtc tgtgaagcac ccagttctca gcaactgccta cgagcccagg 45300
 cctgttttgaa gccgcataac aagtccttgg aaacccggtc tactcaggag ccccagggtc 45360
 caggatcagc aggtgctgca gggccactga gagcccgggc ttctgggagg gcggcactcg 45420
 gggactacag aacaccagga gttcaatccc ctgagattaa ggagaaaccg agaaaccctg 45480
 cccaacccgg actccttctg gtgcctttac ccactgctaa ggctctgctg gtaaatatcc 45540
 aagcagcagc cggaagttcc tgcacctctt ccttcccgtc tcctgccaag ggggaggaac 45600
 caggcatgcg gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 45660
 gagagagaga gagagagaga gagagagaga cccatgggtg gcgtgcgtgt gtgtgtgtca 45720
 agctggaccc cgtggcccca gtgcagcccc ctccattact ttacttttgg tgcaggatca 45780
 tcccatgggc gtgggccccg cgggtgagta acaataggca gggttgggcc aacgccgggc 45840
 tcctccccgt cggttacgca acaaggcggga gcgagatgaa ggctcttccc cctcgcgtca 45900
 tccagacacc ccaactcccc gccgtcaca gccggtcgcc gccagccgg cttccgccgg 45960
 gaatgaagag ggttgcggtt ggctccggtc ccgcggaccc cacgcgcgtc cgtggagccc 46020
 tcgggcgact tccatgagcc cctcccatcg ctctgagacc cgtgagttt gcttccattg 46080
 tcctctcggc cgcgggctcc ggaacacccg tgcagacca ctgctgatgc acagactgcc 46140
 attgcgccgc tgtcacaccg tgcgtcccc gcccatgga gccgccgct ggtgccgcgg 46200
 cgaccgtaaa agatccagac catgaccccg tgaagaccaa ggtctcggcg cccgccgcgg 46260
 accccaaacc caggacatcg tcacagaagg cggggcactc gttacaagat tgggacacca 46320
 tagccaccgt ggggtgagtga gaactgagta agaacttatg tgtggggacg cggcttggga 46380
 gcgaccctca gatttctgtc tcccacactc tcattactgg gcctccgaa acggggcagc 46440
 cccacgtcac agagctttca ggagggtgac ttcaccttag ggactcggag gctccctact 46500
 ggggtgctag ccacccttgg gacaccacgc ccggcctccc tggecgttgc gcaccgctc 46560
 atgccagga tttctcggga tcgcatccag cctccgact gtagaccct ggccggactc 46620
 gaagggacgc gtgaccccca agggaccctt cggggacgtt tcccagcat ctattgtgtg 46680
 cctgggtctc gttttttctt tagtggctca aacttggtag cctcgtgacc ccgaaagtgt 46740
 ctagggaagc cggtagatcc ccaaacgtgc cggagtactg gggaggagg ctaggatctt 46800
 gcgaatcatg ggcgccagct tctcaagtct gaagcccagg agtcccgggc ttctcagcaa 46860
 acttgggtcac taggacagtt gtgcctggtg tgttgatgat taggaaagt ttccgggagg 46920
 atggaggaag gacagaggga gggattggcg tcctccgac agctgtgagc agagattcta 46980
 gagcttctg tgttcacct ggtgtggaag tcaagtcagg gttcaggacc aggatgagg 47040
 gcaataaaca ctttctcagc tgagcaggtg agatgttaaa aaaaaatgt gtgtgggtaa 47100
 aagggttgc aagtttgatc ctggttccct cttggaggct ggctgacact cgctgcatct 47160
 tggcttttga ttgactttt agggaaaactg agctgcttga atgaatgtcg tttatttatg 47220
 tatcatgttg tattctagc tggcctttcc atcaactgtg agccaggatg acctaaact 47280
 acacattctc cgctcccc tctttctgag tgetgggaac cgagccccac tccaccacag 47340
 attggttatg ggggtgctggg aatggggact gccctctata tgtttgagac attgacctga 47400
 aagtcactgc atagcctaag ctgactggag atgccagaca atcctcctgt cttagctttc 47460
 ccagtgtga gacttcaggg actcattcac aggcacttgg cacctcaact ggttctccac 47520
 ccttttctt ctgtctgtct tccttgcct ctccctccac gcccctctc ggcaccttag 47580

ctggttcttc tctccttcc tctttttttc tttccttctt cttcgtcctt ttttgtgttt 47640
gtttgtttgt ttgtctgttt gtttgttttt gaaaacaagg actctctcca tagctctggg 47700
tcactaactc ctagagatgt gcctgcctct gcctcccaaa atgtaggat taaatatctg 47760
tgccaccaca cctggctctt ttgttaattt taaaattttac ttatttactg tgtgaacgag 47820
gggagggggc agcacaagtg tgggggtcaag gttcaacttt tagaagtctg ttgttttgcc 47880
aagtaagtcc atggtatcaa actgaagtcc ttagacttgg caacaagcct attggtctgc 47940
tgagccctct tactgcccc a ctgtgtccct agaatagacc tcatgggaca tcttgggagc 48000
gtccttgtcc tgaagtccct caacttcttc accttttccct taccatgacc ctgttccctc 48060
ggaatctttt agaaggacct gggcacacac atcagectcc cctctccctt actcatcctt 48120
tcatatata acacacataa ctgagctata agcgtctctt tcaactgagcc ctcacataaa 48180
tttagatggt gtctatgacc aacggagttt tgtgggtgtt tgagacaggg cctccatgtg 48240
tagctctggc tgtccaggta cttgtctgtt agaccaggte ttgaactgca ggtgcctaac 48300
aagtacatac cacccaaatt aacatggagc acctccgtac tctctctctc tctctctctc 48360
tctctctctc tctcacacac acacacacac acatacacat actcacacac aaagacaact 48420
cctgcgtccc tagtccccag cacacactgc gttctccagg aaataagtgt tgatgctttt 48480
gtctctgacc taaagctcat ttctccattc attaggagac tcaagtagag aacatttcag 48540
gctggggatg tgattcagtg gatacagtg ttatagctta gttgagataa tgtttatagc 48600
ttagttggga tggggagact gcttgtgatt acagtacatg tgactcagta gacagagtat 48660
ttatagctca gtgggtagag tgctttagc tcagtacaat gcttgcattc agtgggtaga 48720
attaagtggg tagagtgcct gtagctcagt ggacagagt cttgtaattc agtgaatctc 48780
atatctaaat ttgctgaaca ggccccctct gtccagcagg tctaatgtag tcttgtttcc 48840
ctgtactcag ctgtgatctc ttgagtcctg tgccctcagtt tacttttcag tgcttccatg 48900
gcctgctgcc ttatggaaag ccagtactaa atcttcagtc ttacaagggc agaagatctc 48960
cagtctgtct ggatgggaac atcctcctta gatgaagagt cacatgagca gctgtcagat 49020
gctctgacag atcactacag gctagtgtct ttacactag agaggaatta ctgagggtcc 49080
tgtgggggat gggggagttg gcatctgaga tacattgagg ccatctggta gtccatagtg 49140
acattaatac aaatttagaa ctatctagga gacacttgaa gtccagatca ttgaggaaga 49200
agaatcctgt gcatgggtgg ggaccagag tgcttaaaag ggaaatcaat taccattaa 49260
tattgccaaag tcaccagcgt tcatccctat tgatgtaagg agagcaacta tgtcctgctt 49320
ttgcctccat gaagtcattc cccctggaag gccactctc accaccatac aaccctagtc 49380
attagtaatg gtgtaggctg tgggagttgc attaacattc atgaatatgc agatatacac 49440
tctgtatata cacaccaca ttgtacaagg ccagcctctg cctctttcta gaccagtccc 49500
attgtgcaga ggagagattg taatcaccca tagtacatt ggctgttctt ttgcaaagtc 49560
cctaaagggtg gaatgctgtg cacaatgcct cccaccatgt catcacttcc ctgagtgcata 49620
ccttctaatt cattgtggtt tatgagatgg ggttccactg tcattcaaac caggcatcca 49680
ctccaaccga aactaaagga tcatgggttg gagggatatg accacaggat gtctggaaca 49740
cccagaagca ggacatggtt gggagggtct tctttgaggc ctgcaggaga tggggagtag 49800
ggggctgatg gacctgtacc tcatatttcc accttggac aaaggataac aggtgagcct 49860
accactttg tgccacctg gatgtcttct gttctatgtc atcctgactg aacctatctg 49920

```

ggccatcttg aacccccaccc accctgagcc atcttaaatt ccacctaacc tgtgccattt 49980
tgccttgaag ctatgtatgc tatcttgaat agcacgtaac ctttgccatt tgaatgccac 50040
ccaccctgga ccttcttaac taaaccatct agaaacccat ccaaggcagc catcttgaat 50100
tgctcactgt cttgatatat tctttcaggt ttcttttctt gactgttttc tcctgatagt 50160
ataaagaacc tgtcctgtcc tccttctcaa ccctaaacc ttgtctgtgt atctgtccat 50220
ttcctgctca gcccttagca tcctcatcct gaatcaccaa gggtgataaa tcacactctc 50280
tctctctctc tctctctctc tctctctctc tctctctccc tccctccctc cctccctccc 50340
tccctccccc atgccccctg cccctgcccc ctctccctc tccctctctc ctctccctct 50400
ccctctccct ctccctctct ctctccctct gaaaggcact tgcctgagc cactgggtgt 50460
cctagagtga gtttcaggat gattttccta caaggacatc acccaaaagg agagcaggaa 50520
gtcacagctt cagtcacgca ggccaaagct tcttgcttca atctcgttta gacctggat 50580
gctctagtct tagtctaacc acacactaag gacagcacct tcattctctt gaggacttat 50640
gcacccctag gcgttctctg tattgacatt ttcatttaat tttatttttg aagtgtctggg 50700
tgttgaatat agagcctcac tcacattaag aaaatctcct agtctctctt aagtctctc 50760
tgtctccct ttttctttcc agagtctccc agagtagctc aagctttcct ggaactcact 50820
gtgtattcca ggctgccctc aaaccgtgt taatccttct gccttacttt agaagtgcta 50880
ggattaaagc ctaccctact aggctgaatt tatgcaaagc ttgggattgt gtctctgggt 50940
tcatgcatac tacacttaaa taccctactt ttagttttat ttcttatctg aaataaccac 51000
catgccatca cacttccctt attttaaaaa gatttctccc tgaggctgag ggtggaactc 51060
agtgatacag agcttgaat tctgttgata ggggtgcttat ggcttagtag attggctctt 51120
cctgtgggag gccatccaag ctaatgacac actgctgtac ctgatacttg gctccttcag 51180
gaattatctg gggtgtgttt ccagtccact cttctgttta tattttcctt tccaaggcta 51240
gggttagaat gtgaggggaa tagtaataat aatagccaca gtaataacc acttattatt 51300
attatatcta ttatttgggg ggttgactg gaaccagtg cctcatgcat gctaggtaac 51360
cagccactga gctgctacac acagagccca agagcaaact tgtagtagt agtatcatca 51420
cttttttttt gtttcttaca tttattttat tgcatattgt tagtaaata tccattta 51480
acaattatgt tgtcaaaata aagcaagaaa tagtgctatg actcattgtt gacataatc 51540
acaaatgata acataaaaact ccagtataag agaaacacac acacaatata tatatatata 51600
tatatatata tgtatatcca gtgttcta 51660
ttaaacattt ctattttttt caattttttt attggattgt tattgctctt attgttgctg 51720
tgtgagggtc tgggaatgca accaaggaac tcatttatgc cagtccctgag ttccagcgct 51780
gagttgcac cctagcccat ccttctgcc tctatatcaa atgctgtatt gaccttgac 51840
aaaaatcaca atttcccaat atgatgggga aaaggaaagg acctgcatct atcttcacag 51900
cctgtgcaa ttgttctgc ttgtgcatgt tggattttga aaccagttc tgggtatctg 51960
ggcgacttcc atgtaacatc ttctcagct accccaggag ccttgttacc cacataaaag 52020
tttacatttc ctctcacca tgcagacac agaaaattat gtctgaaagg ttacaggtgt 52080
tcatgtatgg aacacttgac taccatttgt agagcatgtg tgtagattag atcttctct 52140
gaggtagtca tttggggttt ttgttgtgtg tgtttgtttg tcttattggc aaaggcattc 52200
atccttgtgg aaggcaacct tggaatctat aagggtgtg aagtaatttg caatgaattt 52260

```

```

aggtaggtgtt gtttgttacc ttgatgacct gtgacctctg agtcacctta taggtcaagg 52320
gactctgctg tagtgactgt tgtaaattggc tggggtatga gcatcaaaga tggagtgtatt 52380
ttgtatcaca tagggatgct gggacattga ctgggatagg catatacaac atacatttga 52440
gtgaatgtag gttgtgttga tggcttacia ccaagggatt gggggtggag gaggaggaga 52500
gacaagcaac ttaggttttg gtccaatgac aacacaattc tttcttacag actttgaata 52560
ttgggtgtgga atgtgtatta gctagcttcc cattgcagtg acaagatctc tgacattata 52620
aaattataaa gaagaatgat ttgtgggtggc ttgtgctgtc aggcattccat ccatggctct 52680
gttggtttgg acctgtggag atttagagca tcatggggagc ttgtagtaga acagagctgc 52740
ttaccacgta gtggccagta cacatagaaa agagaagatg agtcccagtg tctccttcaa 52800
tgtcatgccc ccaatgagct aagtttctcc cactaggcag taaatagcac cttaccctga 52860
gactttctgg tccitttctg tgactttgtt ctgacagctt ctggcagttg gactctgct 52920
gtactgttct tttccacagt gttaggttcc tctctcagcc tgtgctctgc tctgtgtaat 52980
caacaccacc agctgtttct gcaccacaaa gtctcaggca caagtgtgaa ggaaacaagt 53040
cggtagccat ctgatacaga agtcatcctg tggactgcgc atcgcagtac agctgtcaca 53100
ggctctcttc acctactgta ctttgaacac aaaggtgaca tgtgatccac caatcagaag 53160
cacaggcaag ggttccagtg tcaagaccct tgcttttctc attttctgtg gacaaaatgc 53220
ctgataatag gaatttaagg ggagagggga ttattctgac tcagactgct gctggtccat 53280
catggaggca ggagcaaaga gaaggaatgc tggggctcag cttactttct ggatccagga 53340
ccccagcaaa gggatggtga tgcccatatt cagggtagga tttcctacat cagtgaacta 53400
gatgttctgg ggtagcttgg agcaaaactga ggttatttta agcattttca gcttgattat 53460
cccgttcttc attgaaatgt ctataaatc tcaccacac tttctatcca tctgatecac 53520
tgtaggccag tcttggcttc cactcaggct atgactctgt gtccctctc cattcctatg 53580
tattctgtgg cagggtgtct ctgactgata gacatcacct tttctttaaa gaacaaaaca 53640
aaacaaaaaa ccaacaaacc caaaaaatcc ctaagcacc aagaccaatt ttatatccca 53700
attaattcat tgtaagctta gatagcagaa gtaaaagaat gttttttgag gctgggcatg 53760
acagaggatg cctgttgtcc cttttaaata actttagtac taaacatggg ttttttgtgg 53820
ttattgggct gttcggcctg ctgtctagct gtgggtgtgt ctttcttgat cctgcatctg 53880
gatctagctt gctgtgggga gcattctgta tttttcccc tttttattgg atattttctt 53940
tatgtatgtt tcaaacgtta tcccccttc tggcccccc tctgcaaaa cccctgtccc 54000
atttccccct tctctgatt ctgtgagggt gtccctccac ccaaacacc accttaccgc 54060
cttcacactc cctatactgg ggcacctagc cttcacagga ccaaggacct ctctcccat 54120
tgatatctga caaggccatc ctctgtaca tatgcagta gagccatgag tccctccatg 54180
catactcttt ggttggtagt ttagtcctg ggagctcagg cagtggaggc ttctggttgg 54240
ttgatattgt tgttcttctc gtgaggttgc aaaccccttt agctccttca gtcccttctc 54300
taactcctcc attggagacc ctttgetcag tetaatggtt ggttttgagc atccgctct 54360
gtatttgtca ggttctggca gggcctctca ggagacagct atatcaagct ctttccagca 54420
agcacttctt gtcacctca atagtatctg ggtttggtga ctgtatatgg gatggatccc 54480
cagggtggggc agtctgctcc aactttgtc tccatatttg ttctgtgagt attttgttct 54540
cccttctaag aaggaccgaa gcacccacac tttggtcttc cttcttcttg agcttcatgt 54600

```

gctctgtgaa ctataacttg ggtattccga gcttttgggc taatattcac ttatcagtga 54660
 gtgcatattt tttaatgggtg agaaaagaat gaaattgtat gaggtttgca ttttttttgg 54720
 agtacatcat aagatgtcct tttctacatc ataagacaga aagcaactgt gtttaaaggc 54780
 tgggatgggg agagaggtgg gggatggatg aaggaatggg ggaatggatg ttggtgcgtg 54840
 aggggtggatg agttagtata tagattgaaa tggaagagaa agagtaagag gaaaagagga 54900
 caagatggat atggagctag aagagaaaag gaacacaggg ggcataggga gagatacaga 54960
 tggaggaaga tgaagaataa ttaggaggaa aatagggaag agatgatgaa agggcagatg 55020
 aggcagaaaag ttcagtggag gaaaaaaagg aggaggagca gagagattca gaaagagaag 55080
 aagcaggaag tcttgaaga agaggagggg agggggtagg agacaataga ggcagataga 55140
 ggtggaagag gaaggcagac agagagagca aggattcaaa gttccccacc aggagtcacc 55200
 aagtcagca tttcagctct tcccatggct gtgtttcaat ctccaatgca catagcaggc 55260
 aattatttgt tttaggtttt agtcattatt attactgtgc atatttgtgg ttgtaggcaa 55320
 tagcatgctt gtggacagac atcacaggaa actttgttga gtgactgtcc attcattccc 55380
 caaagcaagc tctttaccct cagagccatc tccctggccc cttgattgac agttgtgtgt 55440
 gaaaaaatat ctatacagag ctcaagtgtc catctaagtt tcttttcttg tatttatctt 55500
 taaggcccca gattggcatg atgtccattc ctcaggtatg tttccttttc ctgaccttg 55560
 actgaatgca ttgtcttctt caggcactgg gacctttggc cgtgtaaacc tggatgaaga 55620
 gaagacaggc aggcaatact gtgccttgaa gattatgagt atcccagatg tcatccgcct 55680
 gaaacaggaa cagcatgtgc agaatagaa agcagtcctg aaggaaataa accatccctt 55740
 cctcattaaa ctgtgagttc ctggctcctt cctttccacc tcctcacctc cetaacgtta 55800
 ttctcccaag agtgcgatgt aggggtgctg ccagggtgt agctcagtgg atagagtgt 55860
 tttagctcag tggatagagt gtttgagct caattggtag agtgcttgca actcagctaa 55920
 tacagtgtt gtagcttaga gggaagagta cttatatata gctcacctta tggaacgctt 55980
 gcagctcaat tgtagagt gttatagctc agtgggtaaa gtgcttgag ctcagctaat 56040
 acagtgtgtg agtagcttag tgggaagagt gcttgagag cagtataag agagtatgta 56100
 gctcagtga tagagtgtt gtagctcagt ggtgtgaggt gggagatact atccagattt 56160
 tgtcttgatt tattattgtg tgtgacctg cacatgggca cagtaccaca caaaggccac 56220
 aggagagcac tatatttcct tggaaactta gttacaggtg gttgtgact gctcaattgg 56280
 gtgcttgga tccaatttac atctttaaga gcagcaagt ttcttaatt ctggtccata 56340
 cctcaaccct taacttagga gtttttataa caactacttt ttgtgtgacc tgaccaggag 56400
 ccatgattct aacagtctct tcaatgttta tgcccaaaca ttgcttatgt tatgtaaaag 56460
 tccaagacct gggctcttta ttacggcttc tagtcaaggt gacagagtaa gctaattatt 56520
 catttgatat tcataaaaag caactgggtga tttttttaac aatattaaat cctcttttga 56580
 atttgagaaa tatagatgta tataaaaaata cttatataca tatatagtat gtgaaggtcc 56640
 atatgggcgt atgcatgtgg agatctgaga acatctgctg tcattcctta atttaaagt 56700
 tttgagacaa ggcttcctga tagcccagga cacagaaagt ccaggagct tcagggaggg 56760
 taaattaccc agcatgtcgt tattgaaaca ccaactgcaca attgtcatgc tattctagag 56820
 tattctatgt tgtcagaaca ttacataagt gcactatagt caaaattcat tagatagtgt 56880
 agaaactaga gcatcgggct gaaggagaag gatcaggttg agtacttggt ccttttgcag 56940

```

agcacctggg tttggttccc agcactcaca gcgcacagtc atctgttaatt ctaatttggg 57000
gacacataca cacaataaaa tatgtaaata agatacaaat aaatatgtat ttttaatat 57060
tgaaacacag ggcatTTAAA ttctacacag acttcaatat tagccaaaat atgttcctgt 57120
tagccacagc accaactgag gctcatcgct ctgtgagtgt ttgtgtccca gtctcctctc 57180
cttatgagga cccagtccgt ttaggtcatg tctaccccaa agacctcatt ctaccccgat 57240
ttccccatTT aaagatccat ctccacacag ctctgtccca aggtcctagg tatgcagaca 57300
tttaatacag gaattctggc agaaagaatc ctgagtgttt agctaagtca gactggacaa 57360
ttctacccac cactgtgtaa ttacacatgc cttaaaggaa tcttttcttt tttgctttct 57420
ttatcttgca tttacaggat tcagcaggtg ggTtaaaaac tatgtcaaag tgacttagtg 57480
ctatagagat ttgcacttgg cctgcatgct gtattcacag catggcagag cacactgtat 57540
atctgtccag ctgtaggaaC acaacttagc aggtctttga acttcaaagg atgatatgca 57600
tgctacttaa ggccTTtaaa gtcttatact ctgtccttta actgtgaaca cttgtgaggt 57660
catccatcca acttgtgcat gttgcctatg aacatggagt agtctgtctt gaggaaacat 57720
gggatgcccc gcatagtggg aaaggettca aacggtgat gaaaatcaca gcttacattg 57780
ctgcagaaat ctggacttat ttacaaatgg ttttaacaag agtcagtatt aggtcagcc 57840
tactgtacat ggcactattc ccaggacagg gaaaaatgtg tgataagctt caactatcaa 57900
ttggcacaaC ccaaaatccc ctgggaatgg tttcactgag ggatttccca catcagtcca 57960
gcttgtgaat atgtctgtga gagtgttcta attgatgatt gacataggac tccaccacc 58020
atggacaaga tgaggggtga gtgtcaattt gacacagaaa gtttgtgtc tacatgcata 58080
ccatgaccct tcatctgtgc tttcattcct ttatgtcaga ggtatttgca catagaggta 58140
taacaagaaa tgaagtcttg actgggctgc actgtgcaact cttgaaaggT ccagtgcctt 58200
tgggtgccct actgtgggtg ctgagagaag aaacctctca tcctaggggc ttataatcag 58260
agtgtctttt agacattgct ttgtaccct ggagagcaat gatgtttctg gatgaaaacc 58320
ttgtggtagt tgggtgggaa ttacttgcac gatatatgat agatagatag atagatagat 58380
tagatagata gatagataga tagatagata gatagatgga tggatggatg gatggatgga 58440
tggatggata gatagtatat gtagatgata gcagatagat gtacgtagat aacatagatg 58500
atagatcatg aatggaagga caatagatgg tagaaaggTg atagatggTt ggatagatag 58560
gttaaatagc tagataatag atgactgact gatagataat gataacatac atacatacat 58620
acatagtatt gacggtaata ttgaaggTct cacctagggc accatctctt agcatatact 58680
ctccttgtga attccaccct caggttgTca ccacagtttt agcatcctct gatattctaa 58740
tatcaacctg catctacagt ccagctaagc acaaccttat gatctgggtt gactgacatc 58800
agatatctta tcaaacatct tgattacttg ctggtgagct ttgattctgt tgtgattaaa 58860
caatgactaa gagggactga gggtaggaaa ggcttaactt ggctacttgg ctttcacttt 58920
gctgtcacag gccatctgag aggaaagtca gagcaggaac cagaagcata aagctttcat 58980
ccagcccaag aaccagTcc atgatgggtg gggttctcta tgtcaattat caaacaggac 59040
actccccaca gacaccaca ggccaatcta atgtgagaaa tgactcactg agaccctacc 59100
taggtgactt caagctgtgt tagagctgac agcacatctt cccctgcta gggactggcg 59160
ccaccctcca tggagatgat cgtcatactt caatcaacta atcagctgaa taaagacatc 59220
cccccataga catgcccaca ggctaggatg atatgggaaa ttcttcactg agtaccttcc 59280

```

caagtgactc tgggtcataa aggtgatggt taaagctaac caggacacat tcacatgttt 59340
 gcatctgttt atgtgtttat cttgatatct gttttatat tttgatattt gcatatatgc 59400
 acctgttagt gtctgtgtat accagtatat taatgggaac atctacctct gtatatctgg 59460
 agtctgtaca catactttgt catcagtgtc tgtcaatcac caacatacat ccatccatga 59520
 gtatccactt ctgagcacc cacttattac ccatcgtgca ctctgtttgt tctcgcaggc 59580
 tttggacagg ccatgacaac cgcttcctat acatgttgat ggagttcgtg cctggtggtg 59640
 agctcttcac ctacctgcgt aatcgtggcc gattctctc agttgcttca gtcttctacg 59700
 ccacagagat tgtgtgtgcc atagaatata tacactcaaa ggaaatcgta tacagggacc 59760
 tgaagcctga aaacatcctt ctagacaggg aaggacatat taaactgaca gacttcggct 59820
 tcgccaagaa actggtggat aggtgagtg gaacagccat tggctcatca gaggttaatt 59880
 aaaaaataaa ggtttgattt aaatgggtgg acagaaaggg gcagaagatg tatggtgggc 59940
 tctggtgtga tgcacttct cctccateta tttagatggg tctcccattt tccccatt 60000
 ggtatagtaa taaaaccatc tttaaaaagc agattaagga agaacaggga taaaggtgcc 60060
 aacaggagca tgttagagg acagctgttt acattgtagc cacatatagg aagagcaagc 60120
 aggaagtaga gcagggttat tgtcttagtt agggttttac tgatatgaac agataccatg 60180
 aacaaggcaa gtcttataag gacaacattt aattggggct ggcttactgg ttcagaggtt 60240
 cagtcatta tcacagggc aggagcatgg cagcatacat gcaggcatgg tgcaggagga 60300
 actgaaaagt tctacatgtt tggctgaagg cttctggaag actggcttta ggacatctag 60360
 gatgagagtc tcaaagccca ataccagagt ggcacaccta ctccagtagt gcccctcct 60420
 gggccaagca tatacaaacc atcacattct actccctggc ccccataggc ttgttcaaac 60480
 atgagtcate cacgggggcc atgcctaaac atagcatatt aaaaaatac atttagtcca 60540
 acttccaagt cccacagtc tatagcagtc tcaataatgc taaaagtcca aagttcaaag 60600
 tctcatctga gattcaccca atcaattaac tgtaatcccc aaatcaaggc aggaaaccag 60660
 ctgggcaaac tcaaactctg aattcccatg tctgatgtca aaggagtctt cagatctcca 60720
 gctccttttt catcattgtt gactgtaaca aatttctttg cctgggctgg ttcactccc 60780
 ttttagcaac tttcctcaac atgtatccca tgaccctggc atctttaaca tcttggggtc 60840
 tccaagtcaa cttcagcttc acagcttctt gttccagtgt ctgggatcta cacatgatct 60900
 tctgggctcc tccaaaggac ttgcattgcc acaggctcct cattcccgt gcaacaggaa 60960
 cttcatggac accaagtcgg gttcacacaa tgacttcttt acttgtggt ttttcttta 61020
 cagctctctt cccagcagc ttcttcttag ggcaagggt aaactacaac tcctattaca 61080
 atagcttctc ttactcctac ttctaactac agcaagggt aaactatatt caaacgact 61140
 cacctcctc tagctccacc ccactcatc caatcagaat tcacacacgc tctaggcatg 61200
 agctcagatc gttcacagat aggetgacag gtctgatca caagggatag tctagcctgg 61260
 caggcagccc acgatgcag cctcaactgca catgctcggg caaggcagta aacaacttgg 61320
 cccatgcagc cacatctgct tcccgcgtcg catcaettct tcaactctgc cctctatagc 61380
 actatagtct ctggttgact ccaactccact gtgtgtgcca ttcttggtac tgacatetta 61440
 aatatgctgg catcttcac agcaactagg cttaccaat agcctctcat aggtctctt 61500
 catggtgcca ggctcaact ttgcatggcc ccctcagtc caggccatca actataactg 61560
 agactgcacc ttcaccaatg gctcccatg gcctctcaca gtgctaagcc tcagctgctc 61620

tccatggccc cttcatacct tcaaaaccag taccacttgg gtgattctta tgcattatca 61680
agtccagctg caacatgaca tacaacctcg gctatctctg gaacacagct tctttgtgct 61740
ttcagaaaat acttctcaga agatttcact tcaatgatgc tggctttaat cactgctaata 61800
atcttagctc cagctaacca gcaacaattg ttctgttagt cccttttatt cttgactctg 61860
aagctagagc cacatgggtg aaactgccaa attctgcagc ttgctagtgc cggaacattc 61920
tgccccactta ttctatttagc agcttttctat ttccaactc cctcaaggct tggctgtcct 61980
tgaacttgca ctgtagattg acctgaact cagagatctg catggctctg tctcctgaat 62040
gccccctcag attgtgagca gaagagaaaa ttgttctgcc atcaagatgg ttgaatatgt 62100
tccagaaaat tccaatattg tatgtgtgaa tgttttcata attgcatata gatagatata 62160
tagattactt atatcatcat ataatttata tatctatata atcctacat tctgtactt 62220
aagcttttct tcacctagaa ctgtctctgt accaggtggt ccttgaactt agaactgctt 62280
gactttttct cctgggatta aaagtatgta ccagcatgcc tgggcctaag cttttcatag 62340
ccactgttcc tcaagatcca gatcaaaagc ctgtgtcttc tagcctcaag atctggatca 62400
caagtgtacc cttcatttct agattgtagt ttattccaga ttaaaagtcc aactatttcc 62460
ttgtttaact gcaaacacaa gcagtaggtt tagctaggtg ggttcttgca gtgagattac 62520
cactccctga atgtctttat ctcttgaac accggattca gctccatttc acttctgga 62580
gtccctttat aacttgacc atacatttta ttttttctt ttctcagctt gtttctcttg 62640
ttcaaaacac ctttctgag acttaatcag agaacaaagt ttctgttggg ctttttgaga 62700
cttctttgt caatgcaatt aatataaatc tctttacgtt aacctcaggt agacgttca 62760
ggcaagggca aaaagcagcc ccattcttca ccaaaatata acaagtctct cagccacata 62820
ttaaaattgt tctcctctga aatctctata accaggttcc cacagttcaa atcactcaca 62880
gcaataacat cttccatatt cctaccagga tggcccatg agccccacat aaagcattcc 62940
agtgttttcc aaatacaaag tccccaaatc cacattcttc caaacgaagg catggtcaga 63000
cctatcacag taatatgcca gtccctgata ccaacttctg tcttattact gctataaaca 63060
gaccaaggca actcttttaa aaacatttat tggggctggc ttacacgata agaggttcag 63120
tacattatca aggtggaagc atgacagcat ctaggcaggc atggtgcagg cagagctgaa 63180
agttctacct cttcatctga aggctgctag aagactggct ttcggacatc caggatgagg 63240
gtctcaaagc ctatgtccac agtgacacac ctactcaaac aagggcacaa atactccagc 63300
atttccactc cctgggcca gacatatag accatcacat ttaaaaaaaa aaaccttgag 63360
ccccactgct actgacatac ttttctctgt gaggtccac tttacctaaa gcttatccag 63420
aacitttcca aacagagctg cctgtgtggc caagtgttaa aatacctgag cctgtggggg 63480
acagcccaca cctagtgtac agctatggga gtggagaggc cctccagat tgtgagcaga 63540
agagaaaatt gttctgcat caagatgggt gaatatgttc cagaaaattc caatattgtg 63600
tgtgtgaatg ttttcataat tgcatataga tagatatata gattacttat atcatcatat 63660
aatttatata tctatataca ttatatata actatattat atatatttgt atattttaca 63720
cacagtaata tgctcaggga tactatagct ggatcacatg gcagttcaat ttttttagtg 63780
ttgtattttt ccccataaga tacatttatt ttatgtctct atggtgtgcc tatatgcatg 63840
tcatacccac agaggccata agagggcata agatacccta gacctggagt tacaggtgaa 63900
tgtgtgcagt cttatgggta ctaggtgttg aaccaggtt ctctgcaagg gcagccagca 63960

```

atcttaaagc taacatgcct ctccagcctc tgtcttagag ttttctatth atagaactca 64020
gtccttaggg tcctttgccc agggctcctt cccctattca tagctatgga agttctttac 64080
tgataatgaa gaagatgggt tcatgttcct gttaacccat agccggggta gggggggaaa 64140
ggctcaatat tgagggaatc agatactttc cagcctcaaa ggggtgtccat gctgtgtaca 64200
gattctctat gatcccagta ttgctgtggg gtgctaagta cccttaacca gccagccagc 64260
cattgggtgca ttttgtaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagaa tgtgtgcaga 64320
aaggttcaaa gctataggaa caagccagaa ctagaaaatt ccacagcctg aggcatgcag 64380
gcctccagcc tggggcagac acaaaaagac tcagctttca gtggggtaag cagagctgcc 64440
tccggtagag ttacctgtga cctcatcagc tcattagctc tatctgccct gatcttgctc 64500
tgagacaagg ctacaaggat caaaatctga gttattgggc ccaggggcaa atggaatggt 64560
gggagcctgt gatggactga cttctagttg atttccatta cggagagaag agaggaggca 64620
gaggggtgat gtgcagccca ggetgtcata gcaactacta gggagccaag gatgacctg 64680
aactgatccc tcctatctgg acctctggcg tgetagtatg acaagtaagc atctccacat 64740
cttgthtatg ctggggttgg gatctgggct cagtgcctac aaggcaagca ctctgcccac 64800
tgagctacaa gcattctgtt cctgttccta ccctatagtt ctatccctc tgagttggat 64860
cagttcttta caggttcttg actcgaatcc cttctatct gttccctgtg ctgtactgct 64920
cagaagctct tgagthttgg gccctcatct ctgtcagttc cttcctgagc ctagaatcc 64980
ttattaggaa gtcttcctga tatgtccgtc tgtgggtatc agggttggag caaaatggat 65040
ggaactgagc aatggataaa ttcaaggaaa catgtaggct tgaaattgtc ttaatagaat 65100
cagthatttc thctthctct tctaattcat atctthgccc cththcttht taattgcaca 65160
gtcttgccat acagcccagg ccccccaaa tgtcattatc cththgctg agtctctgct 65220
atagthtagat tgccagtggg agccccagac tgagcataga atthtcttht taaaacatt 65280
actthattat thtatgtgtg tgactcttgt ctgcatgtct attatgtctg taagtctatg 65340
taacacatgc attcctgggt cccccagagg tcacaagagg ccatcaggtc ctctgaaac 65400
tgaggttaga ggtgatttht tcaccactat gtggatgctt agaatcaaac tcaggttccc 65460
acaagaacaa gtgtcttht tcactgagcc atctcttgat cccactthta aaaataatta 65520
cattthattt thctggatgg gggagagtac agthcagagg tcaactthca gaagtcagtg 65580
thctgttacc atgaggggtc caggaattga actcgggttg tcaagcttga cacaattgth 65640
tgacctgctg agaatctctg cthcaagcat gcttaggctc ctctcaactt taccatggct 65700
ctagcttcag gacattthtgc tcatatgtaa acatctctc tcattthgtc ctcatgacct 65760
tgtggtatgc ctctctggat cthctagcc tacatactth acacacacag catcattaca 65820
atattththt thtatththt gthccagctt atgtaatggc attgtctatc tatgaggtac 65880
cactgtcaaa cthactgtcc ththcatggc tgaataatat thctththt agthtgacca 65940
catggtgtht attaacctg tataacttht ththcttht attgtaact thctthtgaa 66000
gaaagaaaca atcatththt cctatttht cthctthta aagaaacaa tcaacttht 66060
atthtgata ctctgcagct tgcagctgct tgccacacca attggtctt thaaatataa 66120
attaaagcag gacaaggtag cacttgctt tgataccaga tagcattcaa tgggcagaag 66180
aaggtagatc tctgtacgtt tgaggtagc ctggtctata agacagccaa ggctacacag 66240
agaaaccctg thtcaaaaaa aaaaaaaaaa atagagctth thgtththt aaatgggtt 66300

```

```

tttctttaaa attattcttt tctcctgtga ggacacagta gaaagcctga agctatagtt 66360
ttgtggtaga gcagtttacc aaggatagag cttcatggta aaccagttag gtaatgtata 66420
aggccctggg ttccatcccc aggactgtag gatctgctgg tggaagagta ggatgtagtc 66480
tccatcccag caggagagaga tggggagaat tttttttaaa aagaaacaaa caaaaatcct 66540
agatttgtcc aaacatccta ctgtccttca tctttcttgt ctgtgggtgg caccaaaagc 66600
taaactcaac ctccaatcct gccaaactgtc ctaatttctt ttgacaaaaa tgtttcttga 66660
tgagggttg gagagagaaa ttatcaacat tctggaaatt tttctcttca gaaaggagct 66720
tgttgccaca caagcaggaa gtgctggcac agcagagttg atgaggagag gagaggggtc 66780
atattatttt ttatttcttt gatttttgac acaagccctt gatcccacca cttgggaggc 66840
agaggcaggt ggatctctgt gagtttgagg ccagtttgag atctatagag caagttgcag 66900
gacagcataa gtacatagag agacctgtc tcaaaataca caaaaactct gaagtcttga 66960
tcctcgtgcc tctacctcca tgetatgetg gaaattgaac ccagagtcta aacaccagcc 67020
atgctggtac caacgatgct gtaccaactg agttatatcc ctagecccta tctaatagt 67080
taaaaattat taatactgca tattgattta cccacccatg atggtttgta tattcttggg 67140
ccagggtg gcacctttt aaggtgtgac cttgttggaa ttggtgtgac ctggttggag 67200
taggtttgtc actgtgggtg tgggcataag atcctcacc taggaaagag aggccatta 67260
gtcttgcaaa ctttatatgc ctcatgacag gggaacgaca gggccaagaa gtgcgagtgg 67320
gtgggtagag gagtgggggg gggatatggag gacttttggg atagcattgg aaatgtaaat 67380
gaagaaaata cctaataaaa gtaaataaat aaataaaaata aaagcaaaaa aaaaaagcc 67440
tcaccctagt tgccgtgaag tcagtcttcc actagcagcc tttgaatgaa gacatagaac 67500
tctcagctcc tctgcacca tgccgtccta gatgetgcca tgttcccacc ttgatggtaa 67560
tgaactgaac ctctgaatct gtaagccaga cccaattaag tgttgttttt tataagactt 67620
gccttggtca tgggtgtctgt tgagttttgt ttacttttta agtgttttta ttttaagttg 67680
tgtatctctg tgtgtatgtg tatgccagtg cagtactagc tgaggacaag aaatgatcat 67740
gggatcatct attaaactaaa ttaaattgaa gttaatgctt gtaagtaaag aacattcagc 67800
aaggaacttg ccattacagg gtcagtttat gtgataaata tagatggagc aactagaggt 67860
gatggtctat gcataatac caaggagtgg gcaagtttga ggccagccag gcctaaaaac 67920
aaggaaaaga gtatagaatc aggagtgtt ttgtatatat gctgagtgtt tggacacatg 67980
gtacaagtgt aggagtcaca gcatgaacaa aagcattttg cactctgttc tttcctacct 68040
ctcaccgcc ccagacagga ttttctgtg tccccctggc tgtcctggaa ctactctgt 68100
agaccaggct gacctcaaac tcagagatec acctgtctct gcctcctgag tgctgggatt 68160
gaaggcgtgt atcaccacca ctcatcttct tctacctctt ctgtagatct atcttatact 68220
tgtacaataa tctaccagct aagccatgtt catgtaccta ggcacatgta acaggttcat 68280
gtacctaggc ccataggcca atctgatgtg ggaagtctc cactgagacc ctcccagga 68340
aattctggat tgtgtccgct gacagttaaa gctcacagca cagcttcgtg tgctgggga 68400
atgggtctac ccatggtgac tatgacttgt gcctctttca aatcatggaa tcttatactt 68460
gtcacatcat tgatgcttag aaagttttag atttaggagc attttgtttt agttagaagt 68520
gttcaacctt taaggccata tgtaattttt ttgcacagt gccacacttg tagtgtgatc 68580
tttatcgtg tatcttttag caccttccaa gtttcatgga ttcattgttt tgttaccccc 68640

```

acaggacatg gactctctgt gggacaccag aatatctcgc cccagaagtc attcagagca 68700
 aaggtcatgg aagggtctgt gactgggtggg cactggggcat tcttatattc gagatgctgt 68760
 ctgggtgagt gacctcctg acagacatgg ctgcatacac ggcctatgaa gaaccttagc 68820
 atccccctttt tcctaagtct gcagatacat ggcatatgga tgcactcaca taatgtactg 68880
 tcaagattga aggggtgattg ggtgttttagt ttacttaaac aagactttta cgtttcatag 68940
 acatccatag ttacttatgt ataacatcca tcttctttat gtgatggaca cccaaggcta 69000
 atcagtaccc aaggtgaaca aatgacacta atcagaaaca gctttgtaag tagtgatgga 69060
 agagcagatg aggaaggcaa gtcagttgt tttattcacc ctaatttccc tctcttggca 69120
 atgcacaaga tacaggagtg tgggctctgt ctctgtctcc cagttgatgg gaaggttggt 69180
 tgttcctgat ggtcactggg agctgtggag gcaagtatac acctgataaa aattgtgtaa 69240
 acattgaaag caagattccc aagatctagg tgtagccgag ggaattgtag gccaatacca 69300
 tgggagagtt attcctctgg ggaggtgaca gttttccag tcccaggggc ttttctctgg 69360
 tactgagata aaggaaaatt catcctttgg tagatcaacc caggtaggaa aaaagcttga 69420
 aggaggattt tactaaaata gtgtgagatc tgtcaagaga aagaaagcat ctccttacc 69480
 acccaccagt catctatcta cccactcatc tatccacatg tctattcacc tacctaaggc 69540
 attaatccac ccacccatcc atccatctat ccactcttcc agctcctgga ggtgccaggt 69600
 gtgcttggct tttgtagccc catcaccccc atctctgcag ggcttctgtg agtctgcac 69660
 tctttttttg tctgtcatga ggtcactgtc attgcattta aggtcatctg cagccagggt 69720
 gtgctcatgt caagatctgt cactcattct ctaggcagag accctatatg caaatgatgt 69780
 cacagtcatg tgttctgaaa aatgtacaca tattgtatgt gtttgtaate catgaagctt 69840
 attttcttaa aaatttacia atataaaacc acatttattt atatacatat aattttataat 69900
 atagaacata atttattata tatatatata aaatctatgg agtctaccac atttatttat 69960
 atacacataa tttataatat agaacataat ttattatata tatatataaa atctatggag 70020
 tctagtatat acctgataaa attgtataat catacacaca cacacacaca cacatatata 70080
 tatatatatg tgcatacata tacacacaag agaatgattt agaatcaaca aaaaatgatt 70140
 ttttcacatt gaagtgattg tgaagagcct ggggtcccag tgtctttgaa gagggcatct 70200
 ccagcaatct aacttcttcc cactaaacct ggcttcttga aggtttataa tgatcacttc 70260
 caccctctgc tgggaaggaa gctatcaact gaagctcttt gggagccctc aggacctcc 70320
 atgctgtctc tctcctcctg tggtataacc atctcctaag atcatctgtt tcccatctgt 70380
 cttcagatgg tcatgttaac agttatcaag cagtggatcc atttgacaaa aaaaaaaaaa 70440
 tgtttgcatc cattaagaaa aaataatagt taacacaaaa tagatataat tctgtattta 70500
 actctctact aaatatccat gcttctctct gtgacagggt tccccattt ttcgatgaca 70560
 acccgtttgg gatttaccag aaaatccttg catgcaaaat agatttcccc agacaattgg 70620
 atttcacctc taagtaagt cactcccggc ccggtttcct gccctgcccc catgtctact 70680
 ttcaaagttg tgtgaaatca cactgcaagc atacactcct ggcaaactgg atcagtacaa 70740
 ttctgtcagt catttgtttc caccaggaaa gaaaaacgtt tcagttatc tcattttact 70800
 gaaatttaat attcaaaaga cctgtacat atctcatttc ttttgagatg gacagtgttg 70860
 aaattaacgc agatttggga caagttgtgt aagcgatcag tttgtccatc catccatcct 70920
 tccctctatc caactatctg gttttttttt catttattag ttattaacta acttattgaa 70980

acagggtctc aatttatagc cctagctagc ctggctagtc ttgaactcat agatatctga 71040
 cccctgagtg ctgagataaa aggtatgcac caccatacac agcttcttta ttaacttttt 71100
 aacttgtcta aatttttaac ttttctttga actgttaaga agggcttaga ggaaaagtta 71160
 gtttatggga agtatgacct tgaaggagac aatggaccct aggctcttct tcatgatcat 71220
 ttccatgtgt aaatatagta ttttttatta attttttgag atacttccac acatatgggtg 71280
 tgttttaatg gcattggttt atttactgag ctaggagaat ctttgtgaat gaatctctgt 71340
 gccaccacaa aagttaactt taattcattt ttttcttttt actgaaattg tacatatcat 71400
 aaagaattcc tttttattaa tcattttgtt tacatttcaa atgttatccc ctttccctgt 71460
 ctccccctca cgaatctctc accccctccc cctctctttt gcctctaata aggtgctccc 71520
 cctacccact cctgcctcaa ccctctagca tcccccttct ctgggtcatt gaccctccac 71580
 agaaccaagg gctgccccct ccaactgtgc cagatgagge aatcctctgc tacatatgta 71640
 gtgggagcca tggaccaacc catgtatact ctttggttgg tagtttagtc cctgggagct 71700
 ctgtgtggtc cagttagttg atgttgatct tctgtaggg ttgcaatccc cttcaccttt 71760
 tcagcctttc ccctaactct tccattgggg accccggget caatccaatg gttggctatg 71820
 agtatctcca tctctttag taggctctg gcagaacctc tcagaggatg gccataccag 71880
 gctcctgtct gcaagcacat cttggcatca gcaatagtgt cagggtttgg tgtctgcaga 71940
 tgaaatggat cacatgggtg gacagtctcc agatggcett tccttcagcc tctgctccat 72000
 tttttgttgc tgtatttcct ttagacaggg agaattctgg gtaaaaattt ttagataggt 72060
 ggatagcccc atccctccaa aggaggccat gcctatctac tggaggtagt ctcttcaggt 72120
 tctgtttccc tgcgtttgtg tatttcagct aatgccatcc ctattgggtc ctgagagcct 72180
 gtttcatccc tgggtgtctg gacgtttgag tggttcccca agttccccac ctaccactgc 72240
 tatttctgtc tattcattct ccttggccct ctggagttct ctctgtctc ttctcatacc 72300
 tggtcctgtt ctcttttctt tttctccct ttcctccctc ccaccaggt ctttcttcc 72360
 ctttgcctcc tgtgattatt ttgttcccc ttctatgtgg gagtgaagca tccacaagtt 72420
 ggccttcctt cttgttaagg ttctatgggt tattatttat atgggggtat tctgagcttt 72480
 tgggctaata tccacttacc agtgagtaca taccatgaat atccttttgg gtctgggtta 72540
 cctcactcag gaggttatct gcctacaaaa ctcatgaagt tatcattctg tagagctcag 72600
 tagtattcca ttgtgtaaat gtaccacatt ttctgtatcc attcttcagt tgagagacat 72660
 ctaggttatt tacagcttct ggcattata aataaggetg ctatgaacat agtggagcat 72720
 gtatccttgt tatatgttgg agcatctttt gagtatatgc ccaagagtgg tatagctggc 72780
 tcttcaggta gatctatttc aaattttctg aggaaccaca gattgatttc cagagtgggt 72840
 gtaccagttt gcaatccac caacaatgga gaagtgttc tctttctcca catccttgcc 72900
 agcatctgct gtcacctgag tatctcagcc attctgactg gtgtgagatg gaatctcagg 72960
 gttgttttga tttgcatttc catgatgact aaggatgttg aacatttctc taggtgcttc 73020
 tcagccattc ggtattcctc tgttgaaaat tctctcttta tctctgtgcc ccatttttaa 73080
 attgggttat ttggttctct ggagtcttct tttcttgagt tctttgtata tattggatat 73140
 tagccctcta ttggatgtag ggttggtaaa aatcttttcc aaattaccag gttgctgttt 73200
 tattctgttg tctttgcct tacagaagtt tttcagtttt caaatgaga tccatttttg 73260
 tcaattgttg atcttagagc ctgagccagt ggtattctgt tcaggaaaat tttccctgtg 73320

```

ccaatgtatt caaagttctt tcccactttc tcttgtatta gattgaacat atctggtttt 73380
atatgcaagt ccttgatcca tttggactgg aactttgcac aaggagataa aaacggatca 73440
ttttgcattc ttctacatgc agaccaccag ttgaaccagc accatttggt gaaaatgctg 73500
tttttttcac tgggtgggtt tagctccttt gtcaaagatc aagtaaccat aagtgtgtgg 73560
gttcatttct gggctcttcaa ttctattcca ttgatcttcc tgcctgactc tgtaccagta 73620
ccatgtagtt ttatcacta ttgctctgta gtacagcttg aggtcaggga tgatgagtc 73680
cctagaagtt cttttattgt tgagaattgt tttcgtatc ctgaattttt ggttattcca 73740
gaggaagttg agaattgatt gctctttcta tctctgtgaa gaattgagtt ggaattttta 73800
tggggattgc attgaatcca tagattgctt ttggtaagat ggccattttt actatattaa 73860
ttctacccat ccatgagcat gggagatttt tccatctect gaggtcgtct tcgatttctt 73920
tcttcagaga cttgaagttc ttgtcttata ggtcttttac ttgccagtt agagttaagt 73980
caacatatat tatattattt gtgactattg tgaagggtgt tttcttgatt tctttcttag 74040
cccatttacc cttagttag aggaaggcca ctgatctgtt taacttaatt ttatatccag 74100
ctactttact gaagtagttt atcaagtgtg agagtctct gctagaattt ttggggttgc 74160
ttatgtatac tatcatattg cctgcaaata gggatatttt gacttcttcc tttccaattt 74220
gtatcgcttt gacctaatth tgttgtttaa ttgctagcta gaacttcaag tactatattg 74280
cataaataga gagagagtga gcagccttgg cttgaccctg attttactga gattgcttca 74340
agtttctctc catttagttt gatattggct actggtttgc tctatattgc ttttaatgtg 74400
tttaggtatg taccttgaat tctgatctt tccaagactt ttagcatgaa ggggagttgt 74460
attttattgg aggccttttt cagcatttaa tgagatgatc atgtggttat ttttctattt 74520
gagtttgttt atatagtgga ttatgttaat ggatttgcac atattgaaca tccctgcac 74580
cctgggatga agcctgcttg attgtggtga atgatggtt tgatgtgttc tttgcaagaa 74640
ttttattgag ttttttgtg acaatattca taagcaaaat tggctctgaag ttctctttct 74700
ttgttgggtc tttgtgttgc ataaatatca gtgtaactgt ggcttcatag aacgaattgc 74760
gtagagtacc ttctctttct attttgtgga atcgtttgag aaatattggt atttggtctt 74820
ctttgaaggt ctgatagaat tctgcactaa aactatctgg ccagggtctg tttttttttt 74880
tggggggggg tgggactttt aacgactgct tctatttctt taggggtttg gggactgttt 74940
agacagttta tctggctctg atttaacttt cgttctctaa tctgtctaga aaatcattca 75000
tttcatctag attttccagt aggcctttgt agtaggaact gaagattttc taaatttttt 75060
cagtttctgt tgttatgtct ccttttcat ttctgatgta agatgtttag aggtcaacac 75120
actgcttcac aaacaattac tcagtattca tgttgacct gcatttcatg aagattatgg 75180
caaaaatagt gaaaaagaaa aaacacagag catatttata ttttaaaaa acatataaat 75240
accttcaact ttctttgatt tgaatgtggt cagatttgag ctttttctaa ccagaatgag 75300
ctttggtttc caattgtttc tttagttagt taggcagcag gatcccat agcccagaac 75360
ttctgatccc ttttctcag cttctgaag gcagggtgac aaacagactt gtgccccag 75420
tgatgcaaca gatgagatcc agggctaggt gaagactgta ctcactgagt ataagaactc 75480
agaaagcact ctgctcactg agctaagaac atccttttca ccgagctaca gtccctgctg 75540
gatattatca taggttctat ggattgcagg gtgtttgggt atatgagtgc tcagacatgt 75600
gcgcgctcac acacacatac acacacacag ccataacca tggcattctg tctctacct 75660

```

```

gctttaactt ctctaagtct ttgatttaat ccacettacc atcctttgca ttctcttgte 75720
ttttgtcgac aatagagaca caggagaata acagatattt gggaactcat tccataggtg 75780
tgtgcagcct gcaaactcag tttccctgta cagaactgtg taaatgaaca caggtgtggt 75840
cttcaaaaaca gcctcctcag ttagttacac aggaaggaac aatactggaa tggataaatg 75900
ctaaagggtt gcaggcgaaa cactggctta tagctcagtg ggtggagtgc acataactca 75960
gtggagagag tgcttgaggc agagtgggct gagtacttgt agctcagtgg gtagagtgcc 76020
tgtggctcag tatctagaat gcatatagct tagtgggcag agtgcttgta actcagtggg 76080
gagaatgttt atacctcagt tggtagagag tttgtaactc actgtgtaga ctgtctatag 76140
ctcacatggc atagtactta actcagtggg tagagtgtg gtggccgagt tggcactaac 76200
atgccccaaag ggctgggctc catttcttac catgtaaatg gaaagccagt ctgcatccgt 76260
ggcatatagg agattgaggc tggaagacag gggtttaagg tcattgttag gggttggagc 76320
ccagagtgca agctgcctac ctgcttctc tcacaaatcc tggtaagtct ttttcccaca 76380
atagagatac catgtggtgg tgtgggtgga atgagcacct cagttgattc tggcattttc 76440
tggatccaag tggagtcttc tctgctaaca caggacctc atcaagaagc tgctggtggt 76500
ggacaggacc cgacgcctag gcaacatgaa ggtgagtcac gctagagcat tccagtttgc 76560
aactgacgg tgatgtcatc cactaagagg atcccagacc atgctcaatg ttaaattagt 76620
ttttggcttg tttgtttgtt gctggtttgt ttttattaat tctgtgtatg tactactcag 76680
gtttattacc tgccacagtg gactcaggtc ccctgcagct gcagttacag gagattgtct 76740
acttccatat agatgctgtg aatctaacct gggtcctctg aaagagcagc catctctctg 76800
gccccatatt gctgttttcc ttagagccag actacaatca aaatcactat gttgtagcta 76860
aggataacct tgaacttggt acccactcaa cctcccacct cccaggactg ggatgacatg 76920
catatgcctc cactcatggt tgacttattc tttatTTTTG agtatttatt tatttataag 76980
acagggtctc agtatatact tctgagtgtc ctagaaatct cttttgtaga ctaggctggc 77040
atcaaagtta tcatctgcct cttctccag agtgctagaa ttaaaggcat gtgccaccaa 77100
acctggccac ttaatttatt ttaaattgc tttattggag attttagaaa tgatacacat 77160
gcacacgcac atacacacac actttttttt tcaaatgctt tttactgagt gtttatgttt 77220
cctctcaaga atggggcaga agacatcaag cggcacccgt ggttccgagg tgtggagtgg 77280
gaatctgtgc cacaaagaaa actgaagggt ggagtattat acacccttga attaaatgaa 77340
cagcttcata tatggctcta accaccaggt gagtcccac tactgtgtct cagtcttcca 77400
aattaattta ctagaggttt attgtcattt attttgcgt tgatgtatgt gtattgtttc 77460
tgtgttcatg cgcaccatgt gacttcagta ctggagtacc ttcagcctct cataaaattt 77520
gtattccaag tgacaggcat tacatgtccc cactgggcta cccagtgtca cctcattcac 77580
ttattttatt tctttgttgc tttgtttatt ttgaatgact ctcagccacc cattgtgccc 77640
aagttatcgg gtgatggtga catctccaac tttgagactt atccagagag tgaattggac 77700
aagacacctt ctgtatctga caaagacctg gaaacattca aaaatttctg aggatgagaa 77760
ctcatgtctg aaaggtaaaa cttttttttt ttctgaattt ctaagtaggg tgtcatgtag 77820
ccaaagatag cttttaattt accatgtagt tgagaaaata tacattcagt gcaactgaga 77880
atgatgaatt aaccagtctg cagggtttct tactatgtat gattgtcagg taactcagta 77940
gtaaagtgtg ataatctctg aaccctcccc ctcccttttc tttgccagat gtatgtgaag 78000

```

```

acatcgatac cacaccatac cacaccacag cacaacatac cacaccaatg gccagaacct 78060
tttttgtcgt acgtttccat ttctactat gaaactagaa ggtttggtgt gtgtattcca 78120
gttcctgaaa gatcaataca atcatcacc ttggaacca gcctcatttc aacaactgga 78180
aacctgcccc atgagaattc gcaaacctg ttaaattgta ggttttctcc ttcttcatga 78240
gtcttgtgtt tgtgctgtga attttgtttc ttttttggtt tgtttgtctt tctactgaac 78300
tttttaagtt tgaatttgac ccatttgggt ttatggctgt cagtgtatat gtgcacagaa 78360
attgtgcaaa ctggaaattt tggcactttg tgcttgtgac atgttcattt tttaaagctt 78420
tctgaaaaat ctttcaccct acaggcaaaa aaaaaaaggg tgagatatat gctttttaaa 78480
aatgcctttc tatgcatttt gcaatcattt gtgtacattg tttatttagt tactgtttgt 78540
ttatttagtt cttttctggt cactttaaac ttggaagtca ggaagccaca tgccctgcag 78600
acccttattc agatatagca caaatgtgtg gctttctctc aatcttccag tttagatgtt 78660
ttcagtaaaa tatcccttcc taaagttaag ccagaactct gcatacagca tggcacctgg 78720
gtgcaaagat tgccttttta tgataataca aatgtacca catccccaca agggaaacttt 78780
aaggatccac cccttaagcc cctccctcct ctgttgtaaa tggcattttc ttctcaccat 78840
cttaactttg ttctcccagc catgtccgtc cgtgaaaact caggttccag gccgggaact 78900
tctatgaaag tttgtacaga gctgtatttt tggtagctt tctcagtgtt ttccaatatg 78960
caaactaact gggttatgta cctcaaacaa acaaacacat acaggagata gaatgcagga 79020
ttataatcaa gtccgtgcag tagatgtttg ctattaagta ggaaataaca tgaaattagc 79080
ataggaaata ttgccttaat tctaaacaca catggggaga tcacacatgc gcacatgcac 79140
cctctgtgtg ctctaaagc accttgcaat ctgactccaa tcctaaaaat caaataaaaa 79200
acccttaatc aggctgtaaa tcaaatgaca ctatgcgatg tctactacagt gacatcagac 79260
atcatatagg aatcataatt ttctatttta agatttttaa ttctgtgtgt acatgtgact 79320
gcagtacaca cagccaacaa gtgcaccaga gaccctacag ctggacttat aggcagttct 79380
atgccgccct gcggatgctg agaaccaacc caacctcgat cctctgcagt ccatgtagtt 79440
aacatgcaag aaggggtggt aaggcaaaag cagccatgaa aaagggtgag ggaaatatgt 79500
cctgttctta actctgagtc caggagagt tgtgcacca acaccttctc atgaaacaat 79560
ggaatagtta ataaatttca aatttctctg gtggtagctt gattcgaacc aaagtataaa 79620
agataatcac tagcaaataa aaatttaaaa acaaatttct gggctggaga gatggctcag 79680
cggttaagag cagtgcactg tcttccggag gtctgagtt caaatcccag catcaacctg 79740
gtggctcaca actatctgta atgggatccg atgccctttt ctgatgtgtc taaagacagc 79800
tacaatgtac ttacatataa taaataaata aatcttaaaa agcaaaaaaa aaaaaaagga 79860
aatccctctt tttaaaaaaa aaaaaaacaa atctctatgc tcttcaacta agactgactt 79920
taatgtttag tacagataaa gtactacgtg ctgtggattg gtgcttgtct cactaaacta 79980
gctgttacat gttacactgt agaattgat ttgatggctt aatactgttc acaggacct 80040
ctggctgtgc aaatatccca acattggacc aaaacatacc aatcaccact gtgttgctag 80100
gtgaacccta gtgaaaattt agcattgtgt gggctcttgat gttgaggtga aaatcacaga 80160
aagggctctc cttctgactg tagatttgaa atatgttgat ttcttgggat ttgtttgttt 80220
gtttttgtta ttgttttggg tgaagctccg taggaagcat ttgatgaaca ttcaacacct 80280
gtcattctta tttgtcagaa cactgtaaac cacctgaaac ttataatgca aagtcaaggt 80340

```

```

ttatgtgtga gttggtgccc ccattagggtt gtgtttgttc ccatcagttt aggggggagga 80400
tctgcttccc aactgttaaa tgttactatc aaatctgcct ttgagtctca cacccttgca 80460
tctggcctca cagttatttg ggagagggag gttgctccag ttggttatgt aatagacatc 80520
atgacatcat tatctgtgtg acttagagaa agtgagcacc ccagcgctcc tggtcctcac 80580
atgtcagact aaaacccctt gtcacctccg ttcttctcag agtgtggggc tcatcacttg 80640
acctgctata acacagggtcc cacgtgcact gttcagggtgc accccccccc ctgctgccga 80700
gcaaccgtca gcttgccctga aattatgcag aatgaaaaag cctgtttctt tttccttttt 80760
tatcctgatg catattaaaa aaaatcactg tgatttgtgt gtatatctct ctatatattt 80820
gccccaggaa aactttctgc tgtctaattt ataaaatact attactgagt ccaggtttgt 80880
ttaataaaaag tttgtatgtt ttaagaaatc tgtttcagggt cgtttcttga cttttcctgt 80940
aacacagggt aacaccataa aacacaagtc attgacctg gttaatgacc tcagtgatcc 81000
agtcaccaac agtagttggt gcccatttct cagaggcaga actagtgaag ctgaaatgaa 81060
gttgggttaa tcaaggaaat tggctctgcac ccctgtaaca ggttgatgat tgttttgagg 81120
aatattagta cccaggatag tggaagtatt acaaacttca gacgtcatta acttggggga 81180
tgggggtagg gtggtgcata acctaagtc caagagtgtg ctatgtggga tttcttttct 81240
ggtccttata cgtttctgtg catctcttta ttttctttt acttttttta atgaataata 81300
tctttattta cattacaaat gttatcctct tcccagttc ccctccccag aagcccccta 81360
tcccatccct ctacccctg cttctatgag ggtgttccct caccacca ccaactccta 81420
cctccctgcc ctcgattcac ctacactggg gtatcgagcc ttcacaggac caagggcctc 81480
tactccact gatacctaac aaggccatcc tctactacat atgcggtgg agccatgggt 81540
ccctccatgt gtactccttg gttggtggt tagtccttg gagctttgg ggatctgggt 81600
ggttgatatt gttgttctt ctatgggggt gcaaaccct tcagtcctt cagtccttct 81660
tctaactcct ccattgggga ccctgtgctc agtccagtgg ttggctgtga gcatcgctc 81720
tgtatttata aggctctggc agggcctctc aagagatagc tatataaggc tcctgtcagc 81780
atgcacttct tggaatccac aatagtttct gcatttggtg actgtatatg ggatagatcc 81840
ccagggtgggg cagtctctgg atgaccttct cttcagttc tgcttcatac tttatctcca 81900
tatttgctcc tgtgagtagt ttgttacttc atctaagaag gaccaaagca cccacacttc 81960
ggctcttctt cttgagcatc atgtggtctg tgaattgtat cttgggtatt ccgagctttt 82020
gggctaattgt ccacttatca gtgagtacat accatgggtg ttcttttgta tcttggttac 82080
ctcactcagg atatttttcta gttccatcca gttgcctaag aatttcatga aattattgtt 82140
cttaatagct gagtggtaact ccattgtata aatgtaccac attttctgta tctattcctc 82200
tgttgaagga catctgggtt ctttccaact tctagctatt ataaataagg ctgttatgaa 82260
catagtggag catgtgacct tgttatgtgt tggagaatct ttggggtatg tgctcaggaa 82320
tggttctctt agttttaatc tattggttct tgccctgact ttgatcattt cctgctatcg 82380
ctcctcctgt gtgtgtttgc ttcttttttc taaagtcgtc agatatactt ttaatatgtt 82440
agtatgagaa ctctccaatt tgtttatgga ggcatttggt gctataaact ttcctcttaa 82500
ccctgctttt agagtgtccc ataagtttgg atatgttgtg ccctcatttt cattgaattc 82560
tagaaagtta ttcattcctt tcttttctct gacccagtg atcattgttg ttgttcagtt 82620
ttgatgagga gtatgtggac tttctgttgt ttctgttgtt gttgttgttg ttgttgttgt 82680

```

tgttgttgtt gttgttgaag ttcagattta atccatgggtg atctgatagg atgggattat 82740
 ttcaatcttc ttgtatctgt tgagacttgg tttgtgacag actatatgggt cagtttcgga 82800
 gaaggttccg tgagggtgctg agaaggtata ttcttttgta tttgggtgat agatatatgt 82860
 taagtccatt taaatcataa cctctgttag ttttgttatt tctctgttta gtttctgtct 82920
 caatgacctg tcaattggta agagtggaaat ggtgaagtct cccactatta gcgtgtggga 82980
 ttcattgtgtg attaatcttt agtaatgcat cttttacgaa tgtgggtgcc tttgcatttg 83040
 aggcatagtt gttcagaact gagatgcctt cttgggtgat tttccttttag tgagtatgaa 83100
 gtattcttcc tgggtcatttc tgattgcttt tgggtgaaag tctgttttat tagatattaa 83160
 aatggctagt ccatcttggt tcttaggtgc atttgcttga aaaacctttt tttcagcctt 83220
 tattaatatc tatctttttg ctgagatggt tcttgtgtac agcagaatga tggattctat 83280
 ttacacatcc attcagctag cctgcgtctt ttaactgggg aattgaatct atggatgtta 83340
 agagatatta atgatcaatg attgttataa ctttctgtta ttttgatgggt ggtagtgggtg 83400
 gtagtatgtg tgtgtgttcc tcttctatct taatgggtgt gatctattta tttattttatt 83460
 tatttattca ttgtatttcc tttagtgtag ttagcctcat tgggtttgac ttttccttct 83520
 agtatcctct gaagggttgg gatagtggaa aggtagtttg aatttggctt tgcatagaa 83580
 tatcttagtt tcttcatcta tgttgactga aagttttgct ggggcagtga gccccgtctg 83640
 ccagaccttc aagggtccac catgttctcg aaggtgagta ttgtcaggct gtcggcctgt 83700
 gccacgcagc cgcaatggat ccaagtttga aacatggcaa ctctgaaaga tattaccagg 83760
 agactgaagt ccatcaaaaa tatccagaaa attaccaagt ctatgaagat ggtggcagct 83820
 ataaagtaca cccgggctga gcgggagctg aagcctactc aagcgtatgg aacagggacc 83880
 tgaggacaat aagaagcacc tcattattgg tgtgtcctca gatagagggc tttgtgggtgc 83940
 tattcattcc tcagtggcta aacagatgaa gaatgaagt gctgccctca cagcagctgg 84000
 gaaaaaagt atgattgttt gagttgggtg aaaaatcaag gtcatacttt ataggactca 84060
 ttctgatcag tttttgggtg cattcaaaga tgtgcgacag aagcccccta cttttggaga 84120
 tgcaccagtc attgcccttg agtttttaaa ttctggatat gaatttgata acgactctat 84180
 catttttaat cagttcaagc ttgttatctc ctacaagaca gaagagaaac ccatcttctc 84240
 tctcaatacc attgcgactg ctgagaccat gagcatttat gatgacattg atgctgatgt 84300
 gctgcagaat taccaggaat acaatctggc caacctcatc tactactccc tgaaggagtc 84360
 caccaccagt gagcagagt ccaggatgac tgccatggac aacaccagca agaattgctc 84420
 tgatatgatt gacaaattga cgttgacttt caaccacacc cgccaggatg tcatcacaaa 84480
 ggagttgggt gaaatcatca tcatcatgct gctctgaatt aatgaaaatc aagttgtatc 84540
 ctgagacaag aggtaaagaa gaagaatgtg caggctgatt ttaactgatt gctatctttg 84600
 tcagaagaaa cttgggtccac tgagttacaa agatagcagg atgtttgttg agaaattggg 84660
 tgtaagtata atatatccat ctttatattt tacttggcct ttttcccttg cagcttttaa 84720
 tattctttct tctatatatt tagtgttatg attattatgt gacaggagga ctttcttttc 84780
 tggccaatc tgtttgggtg tcttttaggt tcttatacat ttatatccat ctctttcttt 84840
 aggttaggga taatttcttc tatgattttg ttgaagatgt ttctggacct ttgagctggc 84900
 aatcttctcc ttcttctatt tctattatc ttaggtttgg cttgttcata gtgtcccaag 84960
 tttcctggat gtttcgtgc atgaactttt tagattttgc attttctttg acataaatat 85020

```

tgatatctac tactactact gactcatctc ttgtattctg ttgatgaggc ttgtatcttt 85080
agttcttgtt ctctttccta ggttttccat ctccaggatt tcctcagttt gtgttttctt 85140
tattgcttct atttctcttt taaagtcttg tacagtttta ttcatactct tcacctgttt 85200
ggtcggattt tcctgtcttt ctttataattt atttgcttcc ttgtttaatg cttctaactg 85260
tttgaatgta cttttctgta gttgtttgtt tgtttgcttt tcaagacagg gtttctctgt 85320
gcagtcctgg ctgtcttgga actctgtaga ccaggctggc ctcgaactca gaaatctgcc 85380
tgccaccacc tcccaagtgc tgggattaaa ggtgtgcacc accactgccc ggcttctgta 85440
tttctttatg ggattttatc atgtcctctt taaaggcctc tatctttata agactggatt 85500
taagatcctc ttcttgtgtt tcagtttctt tagggatatac agggtttgtt gtggcagcac 85560
agctgagctc tgggtgtgcc atactacctt aggtcttgtt ggttgtgttc ttaagctagc 85620
ttttaggcat ctgcttttcc ctggtgttgg ctgtatgate ctgatgccag caggacttct 85680
ctggaagatg ggggagccat agtacagaca atggaggtea ggttacaca tcttgggggc 85740
tgtgcctgag gtggacccca ctgataaggg attggtggag caatgctcca acctggaagt 85800
tcttgggggt tccacaggcc tccacataga aacaggatgc tcttgaggte ccctaaggct 85860
cttcaggact gaagagcaag cccagaacta ggcagtagag ttcaggggac tgtgcacaac 85920
tctgcctgct gtatcccagg tggacccaac tgagaaggga ttggtggagc aggtttccaa 85980
gctgggtagt tttggggctc ggaagtcttc cacaggaaag catgacagtc ttgggatcct 86040
ccaaggttct gtcaggactg aagagctaata tcagagttag ataatacaagt tccctttgat 86100
ttttcatgtg acttttttgt ataacataca tttacattta ttaatgaata tctctaaaat 86160
cagcaaccat taaaaagtga ttgcattatg tggtaagca gaactagcaa ctttcgtttt 86220
ttaaaaagca caaatcttaa aaatctcaat ttattccat acataataca gcatactagt 86280
tatgttaaat gctacaaacc aatgtgagtc taatcggatg gggaaaagca cacatttaag 86340
ctttaagaaa catttttccc tatatattag cattttctta aatacataca tgagataaat 86400
gaggttaacta taaaatatac agggacaac catccatctt gtgtatatgt atatgtatat 86460
gtatatatat atatatatat ttatatattt atatatatat atatatatat atatatatat 86520
atatatacac acacacacat gcatacatat atctataaaa cttttctaac acagaaaaca 86580
gtgctgggcc cacattgtta ggaaaagata actactatta tgactaggcc agaagttggt 86640
aaataaagag taaacaatgc caagcccca ccacaggaaa ccattggtta catggagtct 86700
atagcaaggt cagcaaatca caaacatcct aagtaattgt gttccaagat atttgatcac 86760
attgtgaacc ccaagattgt gaactggaaa aaaaaaaact ttcttgttgt tgtatggctt 86820
agccctagca cacacctta acccaagagc tttctttttt tgttgttgtt tctttttttt 86880
tccatttttt attaggtatt tacctcattt acatttccaa tgctatacca aaagtccccc 86940
ataccacccc acccccactc ccctacccac ccactcccc tttttggccc tggcattccc 87000
ctgtactggg gcataataag ttccaagagc tttctataaa taagagctaa ataaagtcaa 87060
ctgtaggtca agaggcagag caaacaacca attgagagag agtgaacata gaaagtagaa 87120
tggacggaca ttgagttgaa gggtatttaa gacagtataa agaaggaaaa ggaacttttt 87180
ccttctggga cactggtgga atagaaaggt caactgggtg cttttttctg cctctctgaa 87240
ctagcaggct ctcatcataa tgtctggctt ttgagtcttc atttggcaaa tagaacattt 87300
gggattctgt ttttaaaaca acataactgt ttcataatta gtttttaaat aattttaaaa 87360

```

```

agtgtataacc cctcagacct gcttgttgggt attactgtag ccaacacaat ccatgagcca 87420
attctgctgt cccagggttt caaatcacag ggtttgaatt tttttgttgt tgttgagtg 87480
aggaagagat agaggttgga gaagggtggt ctctgtgtaa aacaggtaga taaatatagt 87540
gtaacatca cctggttaca tacagtaaac tttaggttct tgtagggtgg gccaatgggc 87600
ccctggcagg ctgggtggga tgcaggaaac ctgggctgct gcatgagaat ggggtttgtt 87660
ggaacaggcc tgctatcagg tgctggcccc acaagtgggt tattcactta gggcaacaac 87720
cccagatggg gataggaaag gaaataaatg ggacttgaaa gtgtaggga ctcagacttc 87780
tccagacctt gagggcagga gtcaggccag gaagggccat aagatagagg ttcatgccct 87840
ccttgtctct gtccttatgg gattcctagg agactcacc aggcaggtga gagacaggcc 87900
ctgactggag aggaaatgcc ttgaaaatca aacagtcttg gtagtctcat gtgacttata 87960
aacactttta ttaaaacact cccttgggtt ttcttttctt tttagattt atttattatt 88020
atatctaagt acactgtttt agctgtactt cagatgcacc agaagagggt gtcagatctc 88080
atcatggatg gttgtgagcc accatgtagt tgctgggatt tgaactcaag accttcggaa 88140
gagcagtcag tgctcttaac cactgagcca tctctcatca caggtttttg tgtcttaaat 88200
gctgtcttgt tacataacca gagtggctctg aagctcagat tggcattaga cacactgttg 88260
tcttcctcct accaaggctt tgcagctgga gttaggatg gttgtaaact actatgtggg 88320
tactgggagt caaaccaggg gcctctacta gtagtaaccag tggtctttaa aatgattta 88380
tttatttggt ttatataagt acactgtagc tgtcttcaa tacaccagaa gagggcatgg 88440
atcccattac agatggttgt aagccatcat gtggttgctg gggattgaac tcaggacctc 88500
tggcagagca gtcaatgctc ttaaccactg agtcatctct ccagcaccta aatgctgaaa 88560
ttctaatttg taccttcctt acaaaggtag aaacaaatgc taatgtatgc tttgtatgaa 88620
ttattgtgac tcagaatgag gtagttgact gtgtcttgca agcccgaggc cctacctttg 88680
atcttcagtg ccatacagaa acaaaacaaa cgtattaaag agtcctcaga ttttcagtag 88740
ctcccccttc tgcctctata catgtggcca tagattggat tggacaaata ggcagatgga 88800
gacctgtga ggggtgagat gagcaaaatt attctagaag tagtacaggg ggtacactaa 88860
ggctgactgg tctttgggggt aaaatggttt gttataccac agaaagacag caaggcaaga 88920
agagctcttg aggggaactc tgggccatgt gggaaagtag gaatccctcc ttgtacgctt 88980
aggaggagg gtaaaaaatcc atgctacata cacaaaagat tttatgcttg taactgacat 89040
gattgcagta gttcccacag accaccttca ctgcaagaca gaagttctaa gcataggctg 89100
tgatctgcag aaaggacct tgacaatgtc aaatgacagt tttgcttcca ctttgagaa 89160
ggcatttttc ccaacatgga gaggtatcca ttgcttctca gaattctaga gtgcttagaa 89220
tggccttgct acttgcaata tgcccaaggg tccttactct caactccaga aactctctgt 89280
atgactatta tcaacaataa tattaataa tgcattacta ttatttattt gtctaaattt 89340
ttattgaatc tctatatagt atattccatc tatttacctg tcaatattta tctcattttt 89400
ttctcttgaa aatatttctg tgcacatg ttttcttgct aggtatgtat acctagtgcc 89460
gatatagact gtaaggatcc catggaattg aagttgcaga tggttgtaag aggccatgtg 89520
gaggctgtaa atcaagcctt ggtcccacag aagagcagca aatgcatttt aataggtgat 89580
ccatcagtc aggactcatt ctccctttt ctatttgagg gagcatctgt aagcctaaag 89640
gggccttgaa gtcacaatcc tcctgtctca gcttcaggg gactgggagt gtagttgagt 89700

```

ctgctctaac taaacttaac aggcttttat ggtgcttagt gccataagt aaaatgatgg 89760
 agatgagaaa atgaaaagag cccagagcag aagatagatg cccaaggcca acccagattt 89820
 aaatatggat taggctcagg aggccagggt acatttacca tgctagaggc tcatcagggg 89880
 ctatagacac ctgttggtga ctggatctga tcctggattg ggtccacaag tgctctggaa 89940
 ttttttttaa ttaggtatit tctctattta catttccaat gctatcccaa aagtccccca 90000
 taccctcccc cccattctcc taccaccca ctcccacttc ttggccctgg cgttcccctg 90060
 tactgagggt tactgaggca tataaagttt gcaagtacaa tgggcctctc ttcccaatga 90120
 tggccgacta ggccatcttc tgatacatat gcagctagag acacgagctc cggggtactg 90180
 gttagtctcat attgttggtc tacctatagg actgcagatc ctttaggtc cttgggtact 90240
 ttctctagct cctccattgg ggaccctgtg atccatccaa tagctgactg tgagcatcca 90300
 cttctgtgtt tgctaggctc cagcatagtc tcacaagaga cagctatata agagtccttt 90360
 cagcaaaatc ttgctagtgt atgcaatggg gtcagcgttt ggaggctgat tatgggatgg 90420
 atccccggat atggtagtct ctataggttc catcttttg tctcagctcc aaactttgtc 90480
 tctgtaactc cttccatggg tgtttagttc ccaattctaa gaaggggcaa agtgtccaca 90540
 ctttggtttt cattcttctt cagtttcatg tactttgtat cttgtatctt gggatttcta 90600
 agtttctggg ctaatatcca cttatcagt agtacatgtc atgtgagttc ttttgatgatt 90660
 gggttacctc actcagaatg atgccctcca ggtccatcca tttgcctagg aatttcataa 90720
 attcattctt tttaatagct gagcagtact ccattgtgta aatgtaacac attttctgta 90780
 tccattcttc tgttgagggg cttctgggtt ctttcagct tctagctatt ataaataggg 90840
 ctgctataaa catagtggag catgtgtttt tcttaccggt tggaacatct tctggatata 90900
 tgcccaggag aggtattgct ggatcctcca gtagtactat gtccaatttt ctgaggaacc 90960
 accagactga tttccagagt tgtacaagtt tacaatccca ccagcaatga aggagtgttc 91020
 ctctttctcc acatccttgc cagcacctga attcttgatc ttagccattt tgactggtgt 91080
 aagatggaat ctgagggtc ttttggtttg catttcctg atggttaagg atgctgaaca 91140
 ttttttcagg tgcttctcag ccactcggtt ttctcaggt gagaattctt tgtttagctc 91200
 tgagcctcat tttttaatgg ggttttctga tttctggag tccaccttct tgagttcttt 91260
 atatatgttg gatattcgtc ccctatctga tttaggatag gtaaagatcc tttcccagtc 91320
 tgttggtggc ctttttctct tattgacggg gtcttttgc ttacagaagc tttgcagttt 91380
 catgagggtc catttgtaa ttctcaatct tacagcaca gacattgctg ttctattcag 91440
 gaattttccc cctgtgcttt tccccacttt ctctctata agtttactg tctctggttt 91500
 tatgtggagt tccttgatcc acttagattt gaccttaata caaggagata ggaatggatc 91560
 aattcgcatt cttccacatg ttaactgcca gttgtgccag taccgtttgt tgaaaatgct 91620
 gtcttttttc ccattgcatg gttttagctc cttgtcaaa gatcaagtga tcataggtgt 91680
 gtggattcat ttctgggtct tcaattcttt tccactggtc tacttgtctg tcagtatacc 91740
 agtaccatgc agttttatc acaattgtc ttagtagcat ctttaggtcc ggcatggtga 91800
 ttccaccaga ggttctttta tccttgagaa gagtttttgc tatectatgt tttttgttat 91860
 tccagatgaa tttgcagatt cctctttctg attcgttgaa gaattgagtt ggaattttga 91920
 tggggattgc attgaatctg tagattgctt ttggcaagat agccattttt actatatcga 91980
 tcttgccaat ccatgagcat gggagatctt tccatcttct gagatcttct ataatttctt 92040

```

tcttcagaga cttgaagttc ttttcataca gatctttcac ttccttattt agagtcatgc 92100
caaggtatatt tatattattt gtgactattg agaagggtgt tgtatccctg atttctttct 92160
cagcttgttt attctttgtg tagagaaagg gctctggaat ttttacatct tccagtgggt 92220
ttagcagagt ccataaacct aggctgggtga ctagatccaa cattgggtta ggtcatcctg 92280
gtctacagaa tgagttccag gacagccaga gctacatagt aattccctgt ctcaaaaaaa 92340
aaaattaaaa agaaagaaac aaagaaagaa agaaagaaag aaaggaagga aggaaggaag 92400
gaaggaagga aggaaggaag gaagagagaa agaaagaaca acatgagtta gggaactgta 92460
gagctggctt tctaattgaa acacttacac tagatctaaa gctctgacta tagtccccta 92520
aaccttaaca tgacaaagta tacactcata cacctagacc cagacctacc ttacatctca 92580
aagataattt acattcacao gtattgtaat tgaatgctac aggaaaaaat ggacaaaata 92640
tgaaacctat cagatttttg tataaaaaatc aattttaatg ctttactaa ccctaagacc 92700
atgaccataa tcccctaattg ctaatcetaa cettaacaca gcagaccaca aaacctcct 92760
tacttataaa aaaacaaaac taacataacc ttaccttgca tcatagacat aacttatatt 92820
aagagacatg gtaacttgat gttaggtcaa aaaaaatggg atagattatg aaacctattg 92880
gatttgggtg taaaactttc ccaaataatca agattagaaa ctcaggtttt gagaagcatg 92940
attgaatctt ttttgaggca ataaaaaatt taaacctgga ggatgatggt ggcatatgcc 93000
tagaatccca tcaactccga gacagaggca gatggaactc tatgagttcg aggacagcct 93060
ggtctataga atgagttcaa ggacagtcag agccacacaa agaaaaacct gtctcagtaa 93120
aatcaaaaaa caaaacacca aaaaaccac cactgccact accaacaata aataaataaa 93180
taaataaata aataaataaa taaataagtt taaacctgcg gttactagac taatgggtaa 93240
ctctatgatg ctttatagct ctatttcctt gagtcagaat gactggagaa gtgctctgca 93300
gattccagat ggaatgaaag ctattaacct agaaatggta cactgaggca aaggaacca 93360
ggcagggtgg tagagtgaag aaattgcagc catagaagtc tctacaccaa aggtgaagac 93420
taaggagcag cactcaacat ctatagggtc ttggggggccc cttgagttcc taaaaatgc 93480
ctctgcctca taaacaatat gtttgtctgg aagtcagcta ctttcagccc cctatcataa 93540
aacgataacg gaacctgcca tgtccaggtc tgtctgacat gcagaagtcc aagtaacaag 93600
atttggtat acacttctta aagattctct gtctcgtgt ctctctgtct ctgtctgtct 93660
ccttctgtct ctgtctttct gtgtgtattt atatacaagt gtgtgtgtgt gtgtgtgtgt 93720
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgg tgagtaccta ttactgact cttgggcctt 93780
agtaaaaatat attgcaatct gctctaaaac tagaaggcaa gtttttaca tcaagtagata 93840
tttgttctaa agaggcctgg atttttaaag caaaatctga tatcaaaata tctgtgaggg 93900
aggcatgaca ctagcaaaga tatagaagaa gccagacata ataataccat tatgatcaac 93960
tatccaagat aagtgccacc agatataaga ttaacaagga acaataacct agaaccagaa 94020
tcaaagggga aaatgacaca tgggaataaa tactacctac cattaagcta cagaagatca 94080
cttgtgttta ttgccactat accaaaaact aggacatcaa ggaacacaag gactaaaaca 94140
ctgaatagac taatgcaata ttcaggaatc ctggcatgtt attaagaata ctattagcta 94200
gatggttggt gaacacacct ttaatcccga cactcaggag gcagaggcaa gagactctct 94260
gagtttgaga tcacctggt ctacagagt agttccagga gagccagggc tacatggaga 94320
aactctgtct tgaaaaacaa acaaccaaact actattaaag gttgtgaaaa aagttctcac 94380

```

```

ggatactttt taactagata caactctatt ggtaaggcta cacactgtaa gatatatgta 94440
tttaactata caatacaaat acacttcgta ggaccattga tcaaataatag aagtaaatat 94500
acatgcacaa tggcaaacac ctttatagga ttaggcattg tagtgcgcat accctactca 94560
gcaagcctcc atgaacaatc tttggttctg gtacacagcc tttgattgtc ctaagtttat 94620
aatagactct gacaaaggct catacttcgc aggcaaaatg acacaagaaa cggcaaataa 94680
ttagatatct aatggaatth ctatatacca tatagcccta gaacatcagg aaacatgaga 94740
gatgcaatgc tttgatcaaa gaataattaa tgttgtctgg tttaaatttac ctgcaattgg 94800
cttttattaa taaagcagct tataccctga ccagctggg acttagcctg tctatattgg 94860
cttggttcttt tccaaaatct ggacttcagc aacatctcca ataaaacctg gagatattaa 94920
gcactgacta cactatttgc ttcagtggca cattggttga aagatgaaat gaaagataaa 94980
ggtggcattg ccaccttcaa atcaatgttc tcacaactta gtgggacata gtataagact 95040
aatgtgcaca ggccctaatt ggtctaaage agctctcacc actctttgtg actttactac 95100
cttaattaag ttttatcagt tccattcact ttatatgcaa attgtttttg agatttgcc 95160
tctcagacat atttaagtta ggagaagaac taccagatat accattattt gaaagcataa 95220
taacctttct agaacttata aacaaattta ctatacaacc tcatattggg agcagatttt 95280
gttttggccc tggaagacaa agaattggaac tagatcttaa gacgtaatgg tagatacaca 95340
ccccttccact ctcttcacac ttttatattg cttaattgta gtcttactca gttttgaact 95400
ggctctatat caaatactat gaacacctct ctccaagcac cacgcaccta ctgggataca 95460
acacactaac atttagaaag aagtggatca aacctctctt tgtgttgatg ataggtagaa 95520
ggccctcttt gaagctacta ccactactgt cactgtagcc atctggacct agctcactat 95580
attcatttcc ccagaactcc ccaatattgt aggatggaag gacttaatgt aaccatcaga 95640
cttgataata acaatagccg cctattggaa tgttacagaa ttggcacata aacctgttgt 95700
cttaggatct ccattgctgt gaagagacac cacagcaact tttataaagg atatcattta 95760
attggggctg gcttacaggt tcagagggtc agactattat catcatgatg gaaaacatga 95820
caacatccag gaagaaatga tgctgaagtg gtaactgaga gttctatata ttgatccaca 95880
gacagcagaa gactgatgtg acacactggg cagacttgag ctttttagac ttcaaagctc 95940
atacccagta gcctacttcc tccaacaagg ccacacttac tccaacatag ccacacatcc 96000
ttattgtgcc acttcctatg accaaacatt caaacacatg aatctatgtg ggccaccaca 96060
cctgttgaga tgcacatgat aataaatgca aacaggtat gcagaatagt aagcatttta 96120
actcacaact taagagcttt accaacctag acaaatgcaa taatcctact aaagcctcta 96180
gcaatactaa ttgttgaaaa taactggagg attacagaaa ggcacaaaaa agcaatttat 96240
gcagaccact ggataactt agaacaaatg gagctcttgt ctctagctgc atatgtatca 96300
aaagatggcc taataggcca tcacttgaaa gagagatcca ttggacttgc aaactttata 96360
tgccccagta caggggaacg ccagggccaa aaagggggag tgggtgggta ggggagtggg 96420
ggtgggggtg gtatggggga cttttggtat agcattggaa atgtaaatga gctaaatacc 96480
taataaaaaa ggaaaaaata aaaataaata aaagagtaaa aaaaacataa aaatcaatg 96540
ttgatcaaca catttcgtct gctaagatgc cctacctaca agatgagttt ttaattattc 96600
caagctggta ctctgatgga actcttaca gtaacacagc tatggaagtc agctttatac 96660
taattctggg acccatatgg gatggaaaag ataaggacta taaatatgta gaaactgagg 96720

```

```

tatccaacaa taaggatgac acagcaacaa taacaaccaa accatatttt aatcctctca 96780
agccatatatt taatccatct aatgacagta tatccttcat atttagaata caagaaggaa 96840
cagatttaaa aagaaatgag caatgagagt atatattatg ttttaggctt cattaatttt 96900
ccatactttg gacatctctc tctctctgac cacccatgag gtgaaggagt tcacagaagt 96960
ctcatcttgg gacagctgat ctctaatacc tcttaatccc ccatcattat gggattctaa 97020
tacttttggg atatattggg acataatacca attcccactt gtgcctactg aacccaaatg 97080
tctgccctac tctttagaaa gattacaaca aaagtcttta agacagaacc aggcacttac 97140
tctcctaaat tcctatccca ttatttcata ttattagaaa ccaagctagt ggcacatgta 97200
aatttaattt tatcacagcc ccaaactata actctacatt gcctaacttt gaaatgattt 97260
gtgtatgttt agaattaaaa caaaaccttc cacttttacg gggtcacaat tggacaatat 97320
ttggggcaat caactgttag aaaactgggt agcttaggca gaaaatcgca actctaaaat 97380
cactgtccaa cacagatgga acatgtctgg agaagtgtat ctccatagtg tatggggtagg 97440
tactacaatg agatgagcac tcataactact ttggetcaat gtaacaatcc tggctgacaa 97500
acataatcca gcaatagtca aaacactatc aaaagcatct agtttgatac atcaggcatc 97560
aaatatacac agtgatcaaa tatatacagc tatcaccaac agttaatcag gaactcaaat 97620
ccatttaatt tgatgttggc tattggcttg ctgtatattg ctttgattct gtttatgtat 97680
gtgccctgta tccctgattt ctctaatacc tttacatga aggggtattg gattttatca 97740
aagtcttttt cagtgtctaa tgagataatc atgtgatttt ctttgtttat atgggtggatt 97800
atattgatga tattaatata ttgaatcatc tctgcatccc tgggatgaag cttacttgat 97860
catgttggat gatggtttta atgtgttctc tgattcagtt tgctaataatt ttattgagta 97920
tttttgcac aatgttcata aaagaaatta gtctgagaat cttttgttga gtctttgtgt 97980
ggtttaggta tcagggtgac ttagtcaca caaatgagt ttggcagtat tctttctatt 98040
tccattttgt ggaatagttt gaggagtgtt ggtattaggt cttctttgaa agtctggtag 98100
aattctgcac taaaaccatc tggccctggg ctttgggtgg aggattggga gacttttaat 98160
gactgcccc ccacacttag gggttatagg gctgtttaaa tagtttacct gatcttgatt 98220
taacttttgt aagtggatc tgtctagaaa attgtccatt tcaactgagat ttccccgttt 98280
tgtggagtat aggcttttga agtaagacat aaaaattctt ttaatttcat cagtgcctgt 98340
tgttatgtct ccttttcat ttctgatttt gtttacttgg atactgtctt tctgtctttt 98400
ggttagtctg gctaagggtt tgtctatctt gttgatttcc tcaaagaacc ggctgctggg 98460
ttcattgatt atttgtactg ctttctttgt ttctaaatga atgatttttag cccaattttt 98520
gattatttcc tgccttctac tactcttagg tgtacttget tcttttttct atagctttca 98580
gggtgtacttt tttaaactta attttatttt ttacttatte actttacatc ccaactactg 98640
ccccctccca cagtccctcc cccatccccc tccccctct cctctgagca gttgggagcc 98700
ttcctggcta tctcccaatc ctggcacttc aagtctctgt gaagttaggt gcttctccca 98760
ctgaggccag tcaaggagc ccagctagaa gaagaacata taccacatac aggcaacagc 98820
tcttgggata gcccctgctc cagttgtttg ggacccacac aaagaccaag ctgcacatct 98880
gctgcacatg ttggggaggc ctaagtccag cctgtgtatg ttctctttga ttgggtgtca 98940
gactctgaga gctccaagag tccaggttat ttgctctgtt ggtctttctg tggagtccct 99000
atccctttct gggccacaat ccttcctcct agtcttccaa aagagtcccc aagctccatc 99060

```

cactatttgg ttctgggtgt ttgtatctgt ctgagtcagc tgttgggtgg agcctcccag 99120
 aggacaatat gcacctgtgt gcaagcataa cagagtacca ttaatagtgt tagggattgg 99180
 tgcttgtcca taggatgggt ctcaagttgg gccagttatt ggatggccaa ttcctcaatc 99240
 tctgctccat cccctgtccc tgcatttctt gtggaccgga cagattttgg gttgaaattt 99300
 ttgtgggtga gttgggtgtct ctgtcgtccc actggattct tgcctggctt caggaggcag 99360
 gtcccatatg cccaattttg tgagtcacag ctaaggtcac tcccattgat tcttgggtgc 99420
 ctcccttata ccaggctctt gtcttgtcct ggagatgccc ccccccattt cctcatcctt 99480
 gtcagttgca aagtttttta tggtttaaaa tattactttt actaaaatta aagcatgcta 99540
 tagaatacca ccataagata tttagaattg tgtgtgttgt ttgcttgctt tgtccttctc 99600
 aatgtctttg gctatggcag gtatcaaatg aggaaatgaa aatgatttgt ataaaaatat 99660
 gcttttgata agacttttta gatggaggag agttgctggg tattaaacca gtgcctcatg 99720
 cagactattt cctctgcttt tgaaaaaaaa aaatcttaaa aacatcttct atcccttgta 99780
 aagctcctaa aatgtagata tatcatatac ttatctgggc aatgatttca tctgatttgg 99840
 aattctatca atagcaagt atggttaatt catgtcccaa aatcaaagag gatcaggaat 99900
 atatatgtgg ctagtaggag agatcttgcc cagagtgtga gcctagaata tcaccacaag 99960
 cctcacagca aaagagaaaa tggcttcaaa ctgaatctta aatgactaaa tacttaacat 100020
 ctgaaatgat tgagaatttg tgcctagggg aaacatagtt ctacataaat tataaaatta 100080
 ttcattggaac ttgttagaaa aaaaatttca tgctacataa gacacaagcc atgaaaacca 100140
 tatagcttta cagctaaaat gatttaaaac aatttttaaa atacttaaaa attataaagg 100200
 gagagattgg ttaagagcac aaattgctct tccaggggat gcagtttcta atttcggcta 100260
 ccagatgggtg actcacacct gtctggccac ttcagtggat ctgctgcctt cttctggcct 100320
 tcttgagcac cagacatgcc catagtacac atggtaccaa acaccatac acttaatttt 100380
 cttaataaat aaaaagaaaa cctagagtca taaatatgaa agaaaaatga ttgtaagatg 100440
 aatttttgga tatttgattc catctcactt taatgtacat tcccagaaat cattttacac 100500
 cctaaaaaaaa gggagcatat actactagat agtaaaagct ttaagagttt ggaaatagat 100560
 ctcaactgtta aagcatttgc ttagcatgca tatgactttg gattcaattc tcagcactga 100620
 aagaggctct acaagaaaagg aaaatacaaa ctgcattaag atgagacatt aaagttcatt 100680
 tctatcaaat tcattaatta tattagtctt ttttttcaat gctaaggatt gagcccaagg 100740
 aagaattatt tcaactcagat gagttttctt taaactttgc tactaaagat tcaaatactg 100800
 ggctggaaat atggtctggt gacatagtgt ttaccagca tgtttggttc ctgaatttga 100860
 tccttagtag cggcacttct cccttaagta accctccctt cgaggagagg cccttggtcc 100920
 ggtgaagggt ctctgccaca gtaaagggga atgccagggt caggaagtgg gagggggtgg 100980
 gttggggagc acggggagga aggagcggat aggggggttt cagaggggaa gccaggaaag 101040
 gggataacat ttgaaatgta agtaaaagaaa atatctattt accctttctt agaaatggga 101100
 acaaaacacc catggaagga gttacagaga caaaatttgg agctgtgacg aaaggatgga 101160
 ccatctagtg attgccatat gcagggatcc atcccataat cagcttccaa acgctgacac 101220
 cattgcatac actagcaaga ttttgetgaa aggaccaga tatagctgtc tcttgtgaga 101280
 ctatgccgga gcctagcaaa cacagaagtg gataatcaca gtcagctatt ggatgggtca 101340
 tacggcccct aatggaggag ctagagaaat tacccaagga gctaaaggga actgcaaccc 101400

```

taataggtgg aacaacaata tgaactaacc agtacccecg agctcttgac tctagctgca 101460
tatgtatcaa aagatggcct agtcggccat cactgcaaag agaggcccat tggacttgca 101520
aactttatat gccccagtac agggaaatgc cagggccaaa aaggggcagt ggggtgggtag 101580
gggattgggg gggggtgggt atgggggacc tttgggatag cattgaaaat ctaaacgagg 101640
aaaataccta ataaaaaaaa agaaaatatc taataaaaaa aaagagtaac cctcccttca 101700
aaaaactcag gaagacaaaa ccactaattt tctttctgaa gaaaacaaat cttcaaaacc 101760
ttagacaaac agtgcacacc tacactctct acctgctgaa aagcaagaac ttcactagag 101820
cctgggaaga gagcctgac ctgcatgtac ttccaaattc tctgccatcc ctcccaagaa 101880
aatcattagt cctgggacca gcactaatag gcttttgaac cttcataaca gtttatcaaa 101940
ctttggagac atgtttccac tggcattaag acgtgtttta ctgctgggca gtgggtggcac 102000
atgcctttta tcccagctct cgggaggcag aggcaggcgg atttctgaat ttgaggccag 102060
cctggtctac agagtgagtt ccaggacagc cagggtata cagagaaacc ctatctcgga 102120
aaaacaacaa caacaaaaaa gatgtgtttt actgtatgaa gccaggttct tcccactatg 102180
gaatgcctgg atctaacttg gcacactgcg taagcaatgc attttgagaa gcacaggaat 102240
caatgtgaca gacattagag gccaacttgt ctatctgtga agactaattg gcatcgctcc 102300
tgagataca gacagaggtt ccgcttctgt tgaatgacaa gtggtggcag tagtgatctc 102360
ctccaggaag cacgaagtcc tgctgaacac tgacaagcta gcagcaaatg ctgtctgtgc 102420
ttgctcagct agaacaccac cttcagcttc tttgccaatc tttgccaatc aaagattaaa 102480
gaaatagtat ggactcagga ggcagaggca ggtggatctc tgagtttgag tccagtctgg 102540
tctacagaga atttaaggac aacacagaga aaccctgtct tgaggagaaa aaaagcaaag 102600
aaacaaaaaa gtaatgtgta tttgcccttt gcaaaaagcat cagtggaaaa tggaaaactt 102660
tagttttaaa agttctgaag gtaggtgtgg taatcgtgta cctcagcagt tgtctgagag 102720
aagacagtta tatcgtgagg gttatatgtt gagagacacc tacagctagg tagcaccagc 102780
cagaactaca tagtaaaaca ttgtttcaaa caaaagtctc tatacaattt ctgaaggatt 102840
ttcaaagttc ttacacacac acacacacac acacacacac attcttcttt cactgttgga 102900
ctcattctag acttgggtggg ttcttacaat ttctctgat attagagaat tctctaaaaa 102960
acaaattgaa agtaagtagt ggtaacaccc ctgtgttcat agcactcagg gggctgagac 103020
aaccggcgtg taagttaaag cccaacctgg cttcttaac cagaccctat ctttaatggg 103080
ctgagagtgg gtctaaaatt tgaggttatt gaaaaatgtc tgaacactaa aactatttgc 103140
atagcatttt gagtttgata cttgccccag aataggcaaa ggcataataa tacaagaagg 103200
gtaaaaacct tgacaaaact ttcccaactga aaatgacttg ggatgggggt tgccaaagat 103260
gtacaacata tttatagttt tactttctcca gtaagggaac aactaataaa gtagcagttg 103320
ctacaaaaag aactaattct aggtctggga aggtggttca ttgattaaga gccctgattg 103380
ctcttcctga ggacctaatg tcaacttcca gtcacaacc atcgtaact ggcgttccag 103440
ggatccaatg cttcttgcc tttgtatgta ctgggacatg gatggtgcaa agacacacat 103500
gcagacaaaa gaacacatac atataaaata aaaaaaaatt taaatacaaa taattctgtt 103560
aggtttggtg aatgtccact tttcttcata atcaacgtat aacttataac atgtccattt 103620
atatgtccca tgtatcttct tctgcctgtg ccccatctaa gctatgatag aacatgagga 103680
atgagggaaa aggaaaggga ggagaaatag aaggaagaaa tttccaacac tctcgtcctt 103740

```

```

tctcttcccc actttcattt tattattttg tttccctttt tcatctccct gtccctttaa 103800
ggtagatgtcg attgtatctc aggtaggcct caaagttgat ttgtagccaa agatgccctt 103860
ggattttctga tccccctgct tccaatttcc agatgttaag attatgggct tgtgacatct 103920
catccctaga aaagcataag cttgtagaag tcaagggaca cttttattta ctgctgcctc 103980
tctagaaact tcctgccagt ttggcactta caaaatattt tttagaaaga agaggaaagt 104040
agataatcta tatactaaat aagtacttga taactgagtg gaacttaaaa ttaaaaaaaa 104100
aaagcagtggt ttgtgaacag gtttcagtac ctccccattt ttctcaaagc aaatggctct 104160
ggcggctgtg tctcacacgt gggtaatgaa atctccctgc ctaaagatgt acaatgtgaa 104220
agtctgtttc cccttgtgat agaggttaac attgtaagcc ctgcagcacc acatggctca 104280
ggtagtggtg tggttaaaaat tgtgtttggc caaaagaaac tccaacacat atatgccatc 104340
gctacttcta ttttttttct taaacataat aaaattttaa gaaagaaaaa cctcacaatt 104400
gtaggattt agtggcagaa ggtccttgat gggttggggc agagatgtgc tgcaaagaga 104460
tcacaccatg caaacagatc tcaggagaga ggccatctca gagtggggac ataaaagaga 104520
gagttagagt cagagagcca gactgaaaga gacagactga gagactggaa gacaaagaga 104580
atgggggtgt gttggggggg gggttggtaa gggttttgta acttgtggaa acagtgtaaa 104640
gagtggcatt tggggaaggg aggtgatgat gtgccttttg gcgctgagtt cctgagggca 104700
ggcttgacaa gtgcctgctt tctaacatta atggccattg atactggaaa aaaaaactat 104760
tttattacta cattaattga aatttgcaac tatatttata aataatattt atacatttat 104820
ggagtcatgt taactttcag cccaaggaga gataacatta aaaatgaaat atattttata 104880
aagaaaatat tttcttaacc tcgtaaaagt atacacagta aactatggtt atctgtaaca 104940
tttaaagtaa ataattttag cttacaattt aattatgatg ctgatggggt atgttcagaa 105000
agttattcat gaaaagttcc aattccttac acatagattt tccaactact ttcttttggt 105060
tattcagaaa ggatgggaaa ctacgagggc taacacccta cctccttggt taagggactg 105120
actcaatctt ctactggaga tgccccattg cttttgactt actatgttca ttcagccttc 105180
tatttttaggt ttgattagtt tgattctaca ctttaacttc tctgacata aagctctcaa 105240
taagaaagta tattcattaa cattggcctc agaaagagag aggttttagg ctgttcactg 105300
gatatatgat cagaataaaa gagatacaat acatacacat cagagagagc tgctgtgttg 105360
gtgccagaaa ttgaatccag gtcctctgaa agaagagcca gtgctcttaa gcacctagta 105420
ctgtcttcag ctccaacaag taggtttaaa tcttattttg caatgggacc tggtaggctca 105480
tgcccttaat cctaggtgaa tgactgtgat cttgaaggta gcttggtcta cataatgaat 105540
tccaggacag ccagggttat gtaaaaaaaaa aaaaaaatgt gtcaaaacaa aaaaaaaaaa 105600
aaccttattt tgggagggaa aaattggggt ttctgtcctg acaaatccct agcctttctg 105660
ttgaattctt tataaaaaat gtatttgtgt aaaagctctt ttgttccttt tgcacccaac 105720
tctctgcat gaaaggtcaa catgaaaata ttaaaaatca caaccaagat cgatgaaat 105780
ttaaattata attactaaat gggcacatcc aaattattat gacagagaaa acaaaagccc 105840
taggactagg gagatgtgga aaaatgaagc agtcatgaaa tactaaaacc attcttaact 105900
gtccttattc tggaagggga aaatcaacat ttccctgaaa gctgctgtaa tcatgtgaag 105960
ttcaaatggg ttgatgagcc ttccctccaa caaacagata tgatagcaac taaatttctc 106020
caactaaatt atttacaact gactgagaca gtccctctga agccaggtac tcagctaaac 106080

```

tattcagaat gaaataggaa cggagaagag ggtggaaggc tctgtaatga cagaccacac 106140
 tggaatagta gccactacc tgacttcgta gatgtcctga tatgatggga atgatagaca 106200
 agcatgacag taaggttatg aggtgggaag aagtgagtgg aattacacaa aatctataaa 106260
 gaggaagtga agcaaatgat gtagcaagcc accctcatag gattttgcat ctgatgattg 106320
 agatgggttac taggatctct agctatgaaa tctaaaacag cttttttggg gggggggaat 106380
 caattacctg tagttttatt tcttgttcat ttttcttct ttgaatagca tgtttgcct 106440
 gagccatgaa agtctccac atacaaacca aaagaaggaa aaacaaacat tcgataatcc 106500
 agttcactga aggaaagtac agtggtttaa atatgettac cccagggagt ggcactatta 106560
 gaaggtgtgc cttgtagaag gaggtgtggc cttgttgag ggagcgtgtt actgtgggtg 106620
 tgggctttga gaccctcctt ctagccatgt ggaagacagt cttctctttg ctttcaaac 106680
 aagatgtaca actcagcttt cccggcacca tgtcatgctt cccactgtga tgataatagc 106740
 ctgaacctca gaacctgcaa gtcagcctca attaaacgtt gtcctttata aaagttgcct 106800
 tggcatggt tttcttcac agcaatgaaa accetaagaa agaagtata atgaaattta 106860
 taaagagaaa taatatgtat tttatgaggt atcacatget gtaatattca gtagcacatg 106920
 aggattgaaa attcactaaa attcagtggc tacttctggt ggttctacct ggaatgcttt 106980
 tatttttaaa agaacatcaa ctacagtcaa agtggtttcc attgttttta tgtaactttt 107040
 ctagatatga acctctgttt cggttttcc gtctcacaa tttgtctcta gacaccatt 107100
 ctactaagaa attccacaga gtgtcttata catatactgt tttatacaag gtctctattc 107160
 ctctattcca tacaccccat aacttgtttc tctcctattt cttacaaat gaaggataaa 107220
 gttaaagcaa tttttggaaa agaattttat tctcacatga aagcacaggt tgcggcctat 107280
 gtgggtgctg cctcccttcc tcttctcct cccactcct ctctggttgc catggagaat 107340
 acagttgatg gaaacataca attacaagca acgata 107376

<210> 8

<211> 708

<212> PRT

<213> 人工序列

<220>

<223> SV40大T抗原GenBank:AAB59924.1的合成氨基酸序列

<400> 8

Met	Asp	Lys	Val	Leu	Asn	Arg	Glu	Glu	Ser	Leu	Gln	Leu	Met	Asp	Leu
1				5					10					15	
Leu	Gly	Leu	Glu	Arg	Ser	Ala	Trp	Gly	Asn	Ile	Pro	Leu	Met	Arg	Lys
			20						25					30	
Ala	Tyr	Leu	Lys	Lys	Cys	Lys	Glu	Phe	His	Pro	Asp	Lys	Gly	Gly	Asp
			35						40					45	
Glu	Glu	Lys	Met	Lys	Lys	Met	Asn	Thr	Leu	Tyr	Lys	Lys	Met	Glu	Asp
			50						55					60	
Gly	Val	Lys	Tyr	Ala	His	Gln	Pro	Asp	Phe	Gly	Gly	Phe	Trp	Asp	Ala
65					70					75					80

Thr	Glu	Ile	Pro	Thr	Tyr	Gly	Thr	Asp	Glu	Trp	Glu	Gln	Trp	Trp	Asn	
Ala	Phe	Asn	Glu	Glu	Asn	Leu	Phe	Cys	Ser	Glu	Glu	Met	Pro	Ser	Ser	
Asp	Asp	Glu	Ala	Thr	Ala	Asp	Ser	Gln	His	Ser	Thr	Pro	Pro	Lys	Lys	
Lys	Arg	Lys	Val	Glu	Asp	Pro	Lys	Asp	Phe	Pro	Ser	Glu	Leu	Leu	Ser	
Phe	Leu	Ser	His	Ala	Val	Phe	Ser	Asn	Arg	Thr	Leu	Ala	Cys	Phe	Ala	
Ile	Tyr	Thr	Thr	Lys	Glu	Lys	Ala	Ala	Leu	Leu	Tyr	Lys	Lys	Ile	Met	
Glu	Lys	Tyr	Ser	Val	Thr	Phe	Ile	Ser	Arg	His	Asn	Ser	Tyr	Asn	His	
Asn	Ile	Leu	Phe	Phe	Leu	Thr	Pro	His	Arg	His	Arg	Val	Ser	Ala	Ile	
Asn	Asn	Tyr	Ala	Gln	Lys	Leu	Cys	Thr	Phe	Ser	Phe	Leu	Ile	Cys	Lys	
Gly	Val	Asn	Lys	Glu	Tyr	Leu	Met	Tyr	Ser	Ala	Leu	Thr	Arg	Asp	Pro	
Phe	Ser	Val	Ile	Glu	Glu	Ser	Leu	Pro	Gly	Gly	Leu	Lys	Glu	His	Asp	
Phe	Asn	Pro	Glu	Glu	Ala	Glu	Glu	Thr	Lys	Gln	Val	Ser	Trp	Lys	Leu	
Val	Thr	Glu	Tyr	Ala	Met	Glu	Thr	Lys	Cys	Asp	Asp	Val	Leu	Leu	Leu	
Leu	Gly	Met	Tyr	Leu	Glu	Phe	Gln	Tyr	Ser	Phe	Glu	Met	Cys	Leu	Lys	
Cys	Ile	Lys	Lys	Glu	Gln	Pro	Ser	His	Tyr	Lys	Tyr	His	Glu	Lys	His	
Tyr	Ala	Asn	Ala	Ala	Ile	Phe	Ala	Asp	Ser	Lys	Asn	Gln	Lys	Thr	Ile	
Cys	Gln	Gln	Ala	Val	Asp	Thr	Val	Leu	Ala	Lys	Lys	Arg	Val	Asp	Ser	
Leu	Gln	Leu	Thr	Arg	Glu	Gln	Met	Leu	Thr	Asn	Arg	Phe	Asn	Asp	Leu	
Leu	Asp	Arg	Met	Asp	Ile	Met	Phe	Gly	Ser	Thr	Gly	Ser	Ala	Asp	Ile	
Glu	Glu	Trp	Met	Ala	Gly	Val	Ala	Trp	Leu	His	Cys	Leu	Leu	Pro	Lys	

385	390	395	400
Met Asp Ser Val Val Tyr Asp Phe Leu Lys Cys Met Val Tyr Asn Ile			
	405	410	415
Pro Lys Lys Arg Tyr Trp Leu Phe Lys Gly Pro Ile Asp Ser Gly Lys			
	420	425	430
Thr Thr Leu Ala Ala Ala Leu Leu Glu Leu Cys Gly Gly Lys Ala Leu			
	435	440	445
Asn Val Asn Leu Pro Leu Asp Arg Leu Asn Phe Glu Leu Gly Val Ala			
	450	455	460
Ile Asp Gln Phe Leu Val Val Phe Glu Asp Val Lys Gly Thr Gly Gly			
465	470	475	480
Glu Ser Arg Asp Leu Pro Ser Gly Gln Gly Ile Asn Asn Leu Asp Asn			
	485	490	495
Leu Arg Asp Tyr Leu Asp Gly Ser Val Lys Val Asn Leu Glu Lys Lys			
	500	505	510
His Leu Asn Lys Arg Thr Gln Ile Phe Pro Pro Gly Ile Val Thr Met			
	515	520	525
Asn Glu Tyr Ser Val Pro Lys Thr Leu Gln Ala Arg Phe Val Lys Gln			
	530	535	540
Ile Asp Phe Arg Pro Lys Asp Tyr Leu Lys His Cys Leu Glu Arg Ser			
545	550	555	560
Glu Phe Leu Leu Glu Lys Arg Ile Ile Gln Ser Gly Ile Ala Leu Leu			
	565	570	575
Leu Met Leu Ile Trp Tyr Arg Pro Val Ala Glu Phe Ala Gln Ser Ile			
	580	585	590
Gln Ser Arg Ile Val Glu Trp Lys Glu Arg Leu Asp Lys Glu Phe Ser			
	595	600	605
Leu Ser Val Tyr Gln Lys Met Lys Phe Asn Val Ala Met Gly Ile Gly			
	610	615	620
Val Leu Asp Trp Leu Arg Asn Ser Asp Asp Asp Glu Asp Ser Gln			
625	630	635	640
Glu Asn Ala Asp Lys Asn Glu Asp Gly Gly Glu Lys Asn Met Glu Asp			
	645	650	655
Ser Gly His Glu Thr Gly Ile Asp Ser Gln Ser Gln Gly Ser Phe Gln			
	660	665	670
Ala Pro Gln Ser Ser Gln Ser Val His Asp His Asn Gln Pro Tyr His			
	675	680	685
Ile Cys Arg Gly Phe Thr Cys Phe Lys Lys Pro Pro Thr Pro Pro Pro			
690	695	700	

Glu Pro Glu Thr

705

<210> 9

<211> 174

<212> PRT

<213> 人工序列

<220>

<223> SV40小t抗原GenBank:AAB59925.1的合成氨基酸序列

<400> 9

Met Asp Lys Val Leu Asn Arg Glu Glu Ser Leu Gln Leu Met Asp Leu

1 5 10 15

Leu Gly Leu Glu Arg Ser Ala Trp Gly Asn Ile Pro Leu Met Arg Lys

20 25 30

Ala Tyr Leu Lys Lys Cys Lys Glu Phe His Pro Asp Lys Gly Gly Asp

35 40 45

Glu Glu Lys Met Lys Lys Met Asn Thr Leu Tyr Lys Lys Met Glu Asp

50 55 60

Gly Val Lys Tyr Ala His Gln Pro Asp Phe Gly Gly Phe Trp Asp Ala

65 70 75 80

Thr Glu Val Phe Ala Ser Ser Leu Asn Pro Gly Val Asp Ala Met Tyr

85 90 95

Cys Lys Gln Trp Pro Glu Cys Ala Lys Lys Met Ser Ala Asn Cys Ile

100 105 110

Cys Leu Leu Cys Leu Leu Arg Met Lys His Glu Asn Arg Lys Leu Tyr

115 120 125

Arg Lys Asp Pro Leu Val Trp Val Asp Cys Tyr Cys Phe Asp Cys Phe

130 135 140

Arg Met Trp Phe Gly Leu Asp Leu Cys Glu Gly Thr Leu Leu Leu Trp

145 150 155 160

Cys Asp Ile Ile Gly Gln Thr Thr Tyr Arg Asp Leu Lys Leu

165 170

<210> 10

<211> 22

<212> PRT

<213> 人工序列

<220>

<223> 肽F2A的合成氨基酸序列

<400> 10

Val Lys Gln Thr Leu Asn Phe Asp Leu Leu Lys Leu Ala Gly Asp Val

<223> 合成肽 (LXCXE基序)

<220>

<221> MISC_FEATURE

<222> (2) .. (2)

<223> X是任何氨基酸

<220>

<221> MISC_FEATURE

<222> (4) .. (4)

<223> X是任何氨基酸

<400> 14

Leu Xaa Cys Xaa Glu

1 5

<210> 15

<211> 166040

<212> DNA

<213> 人工序列

<220>

<223> 合成多核苷酸

<400> 15

```
tcaacatcct taatcatcag gaaaatgcaa atcaaaacaa ccctgagatt ccacctcaca 60
ccagtcagaa tggctaagat caaaaattca ggtgacagca gatgctgccg aggatgtgga 120
gaaagaggaa cactcctcca ttgttgggtg gattgcaagc ttgtacaacc actctggaaa 180
tcagtctggc agttcctcag aaaattggac atagtactac tggaggatcc cgcaatacct 240
cttctgggca tataatccaga agatgtttca accagtaaga aaaacacatg ctccactatg 300
ttcatagcag ccttatattat aatagccaga agctggaaag tatccagatg cccctcaaca 360
gaggaatgga tacagaaaat gtgatacatt tacacaatgg agtactactc agctacgaaa 420
aagaatgaat ttatgaaatt cctaggcaaa tggatggacc tggagggcat catcctgagt 480
gaggtaaccc aatcacaaaa gaactcacac aatatgtact ccctgataag tggatattag 540
cccagaaaact tagaataccc aagatataag atacaatttg ctaaacgcat gaaactcaag 600
aagaacaaaag accaaaagtgt ggacactttg ccccgcttta gaattgggaa caaacacccc 660
atggaaggag ttacagagac aaaggttgga gctgagacaa aaggatgggc catctagaga 720
ctaacatata aggggatcca tcccataatc agcttccaaa tgctgacacc actgtgtaca 780
ctagcaagat tttgctgaaa ggaccagat atggctgtct cttctgagac tatgctgggg 840
cctagcaaac acagaagtgg atgctcacag tcagctattg gatggatgac agagctccca 900
atagaggagc tagagaaagt acccaagtag atgaagggat ctgcaatcct ataggtggat 960
caaaaatatg aactaagcaa taccctctg gagctcgtgt ctctagctgc atatgaatca 1020
gaaaatggcc tagtcggcaa tcaatggaaa gagaggccca ttggttggtcc aaactttata 1080
tgacctcaata cagggaacg ccagggccaa gaagtgggag tgggtgggta ggtgagtgt 1140
tctggaagcc tgttggggac tttctggata acattggaaa tgtaaatgaa ataaataccc 1200
```

```

aataataaaa aaagaacatt caaaaaaaaaa aaaaaagatc ctaacccaaa acatccatga 1260
tatccaggac ataatgagaa agcaaggtta ttccattata aaaacatttt tttttttagt 1320
atagaataga gtttatatag ggtataggta ggggagttaa gagagtagta gagacagaga 1380
aaggcagaga gaagaagaga atagagaagt agaggccggt catgaccaca tggaaagagg 1440
gggaagggaa tgcagagaaa ggggacacat ggggcaggag agaggcaaga gtgtaagagt 1500
acaaaaccaa atttacacaa tgtttttcca taaatttagc cctacaaagg ataatagggtg 1560
gaaaacacca caacaaggag ggaaactaca ccctcaaaaa agcaagaaag taatcttaca 1620
tcaaacccaa aagaaaatag ctacatgaac agaatttcaa ctctaataac aaaaataaca 1680
ggaagcaaaa atggctttta cttaaaatct cttaacatcc acggactcaa ctctccaata 1740
aaaacacata tattaataga ctggatatgt aaacaggacc cagcattttg ctgcatacag 1800
gaaacgcgcc tcagtacaa agacagatac tacctcagag taaaaggcta gaaaacaatt 1860
ttccaagcaa gtggtcccaa gaaacaagct gtaataacca ttctaataac aaataaaatt 1920
aacttaatag aaacagattt gtaaaagtgg attaaggaac tccacataaa accagagaca 1980
ctgaaactta tagaggagaa agtagggaaa agcctcgaag atatgggtac aggggaaaaa 2040
ttcctgaata gaacagcaat ggcttgtgct gtaagatcga gagtcaacga atgggacctc 2100
ataaaattgc aaagcttctg caaggaaaaa gacaccatca gtaagacaaa aaggctacca 2160
acagagtggg aaaggatctt tacctattct aaatcagata ggggactaat atccaatata 2220
tataaagaac tcaagaaggt ggactccaga aaattaaata agcccattaa aaatggggct 2280
cagagataaa caaagaattc tcacctgagg aataccgaat ggctgagaag cacttgaaaa 2340
aatgttcaac atccttaatc atcaggaaaa tgcaaatcaa aacaaccctg agattccacc 2400
tcacaccagt cagaatggct aagatcaaaa attcaggtga cagcagatgc tgccgaggat 2460
gtggagaaag aggaacactc ctccattgtt ggtgggattg caagcttgta caaccactct 2520
ggaaatcagt ctggcagttc ctgagaaaat tggacatagt actactggag gatcccgcaa 2580
tacctctcct gggcatatat ccagaagatg tttcaaccag taagaaaaat acatgctcca 2640
ctatgttcat agcagcctta ttataatag ccagaagctg gaaagtatcc agatggccct 2700
caacagagga atggatacag aaaatgtgat acatttacac aatggagtac tactcagcta 2760
ttaaaaagaa tgaatttatg aaattcctag ccaaatggat ggacgtggag ggcacatcc 2820
tgagtgaggt aaccaatca caaaagaact cacacagtat gtactcactg ataagtggat 2880
attagctcag aaacttagaa tacccaagat ataggataca atttccaaaa cacatgaaac 2940
tcaagaagac caaagacca aatatggaca ttttgccctg tcttagaatt gggaacaaaa 3000
cacccatgga aggagctaca gagacaaagt ttggagctga gacgaaagg tggaccctct 3060
agagactgcc atatccgggg atccatccca taatcagctt ccaatcgctg acaccattgc 3120
atacactagc aagatcttgc tgaaaggacc cagatatagc tgtctcttgt gagactatgc 3180
tggggcctag caaacacaga agtggatgct cacagtcage tattggatgg atcacagggc 3240
ccccaatgga ggacctagag aaagtaacca aggagctaaa gggatttgca accctataag 3300
tggaacaaca atatgaacta agcattaccc ccagagctc gtgtctctag ctgcatatgt 3360
ataagaagat ggcctagtgc gccatcagtg gaaagagagg ccatttggtc gtgcaaactt 3420
tatatgcctc agtacagggg aacagcaggg ccaagaagtc atagtgagag ggttggggag 3480
tggggtggggg agcgtgtggg ggacttttgg gatagcattg gaaatgtaac tgaaataaat 3540

```

```

acctaattaa aaaattagaa aatcaaaaaa agaaggtctt tttttttcac aatattaatt 3600
ctactaggct gtacacttac gagatcttca aattctagta tgtttctttt ttctttcttt 3660
tttttaaaga tatatttatt tattttatgt atgtgagtac actgtagctg tcttcagatg 3720
caccagaaga gcgcattcaga tctcattaca gatggtcatt agccaccatg tggttgctgg 3780
gaattgaact caggacctct ggaagagcag ttggttctct taaccgctga gccatctctc 3840
cagccccctct agtatgtttc ttaatctctt tctttacaca tttaaagttt tcattgtaga 3900
gggttttttta accacttttg ttatgtatat tctaaatatt ttattttatt tgagaaactg 3960
gtaagaggag tgtgtccatg atctctttct cagaatgett gttactcata tgtattaaga 4020
cttatgaatt tgacaagtcc cttccgcttg actcgagccc cgggctacct tgccagcaga 4080
gtcttgccca acacccgcaa gggcccacac gggactcccc acgggatacct aagacctctg 4140
gtgagtggaa cacagcgcct gccccaatcc aatcgcgagg aacctgagac tgcagtacat 4200
agggaagcag gctacccggg cctgatctgg ggcacaagcc ccttcagctc cactcgagcc 4260
ccgggctacc ttgccagcag agtcttgccc aacacccgca agggccca cgggactccc 4320
cacgggatcc taagacctct ggtgagtgga acacaacttc tgccaggagt ctggttcgaa 4380
caccagatat ctgggtacct gccctgcaag aagagagctt gcctgcagag aatactctgc 4440
ccactgaaac taagaagagt gctaccctcc aggtctgctt atagaggcta acagagtcac 4500
ctgaagtaca agctcttaac agagacaact ataacagcta gcttcagaga ttaccagatg 4560
gcgaaaggca aacgtaagaa tcctactaac agaaatcaag accactcacc aacatcagaa 4620
cgcagcactc ccaccccacc tagtcctggg caccacaaca caaccgaaaa tctagacca 4680
gatttaaaaa catttctcat gatgatgata gaggacatca agaaggactt tcataagtca 4740
cttaaagaat tacaggagag cactgctaaa gagttacagg cccttaaaga aaagcaggaa 4800
aacacagcca aacaggtaga aatcattaaa gaaaaacagg aaaacacatc caaacagggtg 4860
atggaaatga acaaaaccat actagaacta aaagggttaag tagacacaat aaagaaaacc 4920
caaagcgagg caacgctaga gatagaaacc ctaggaaaga gatctggaac catagatgtg 4980
agcatcgaca acagaatata agaaatggaa gagagaatct caggagcaga agattccata 5040
gagaacatcg acacaacagt caaagaaaat acaaaatgca aaaggatcct aactcaaac 5100
atccaggtaa tccaggacac aatgagaaga ccaaacctac ggataatagg aataaatgag 5160
aatgaagatt ttcaacttaa agggccagct aatatcttca acaaaataat agaagaaaat 5220
ttcccaaaca taaaaaaaga catgcccatt atcatacaag aagcctacag aactccaaat 5280
agactggacc agaaaaagaaa ttctctccga cacataataa ttagaacaac aaatgcaata 5340
aataaagata gaatatataa agcagtaagg gagaaaggte aagtaacata taaaggaagg 5400
actatcagaa ttacaccaga cttttcacca gagactatga aagccagaag agcctggaca 5460
gatgttatac agacactaag agaacacaaa tgccagccca ggctactata cccggccaaa 5520
ctctcaatta ccatagatgg agaaacaaa gtattccacg acaaaaacaa attcacacaa 5580
tatctttcca tgaatccagc ctttcaaagg ataataacag aaaagaagca atacaaggac 5640
ggaaatcacg ccctagaaca accaagaaaag taatcattca acaaaccaaa aagaagacag 5700
ccacaagaac agaattgcaa ctctaacaac aaaaataaaa ggaagcaaca attacttttc 5760
cttaatatct cttaatatca atggactcaa ttccccaata aaaagacata gactaacaga 5820
ctggctacac aaacaggacc caacattctg ctgcttacag gaaaccatc tcagggaaaa 5880

```

agacagacac tacctcagag tgaaaggctg gaaaacaatt ttccaagcaa atggactgaa 5940
 gaaacaagct ggagtagcca ttttaatatc ggataaaatc gacttccaac ccaaagttaa 6000
 caaaaaagac agggagggac acttcatact catcaaaggt aaaatcctcc aagaggaact 6060
 ctcaattctg aatatctacg caccaaatgc aagggcagcc acattcatta gagacacttt 6120
 agtaaaaactc aaacatacat tgcacctcac acaataatag tgggagactt caacacacca 6180
 ctttcttcaa aggacagatc gtggaacag aaactaaaca gggacacagt gaaactaaca 6240
 gaagttatga aacaaatgga cctgacagat atctacagaa cattttatcc taaaacaaaa 6300
 ggatatacct tcttctcagc acctcacggg accttctcca aaattgatca tataattggg 6360
 cacaaaaacag gcctcaatag atacaaaaat attgaaattg tcccatgtat cctatcagac 6420
 caccatggcc taagactgat cttcaataac aacataaata atggaaagcc aacattcacg 6480
 tggaaactga acaacactct tctcaatgat accttggtca aggaaggaaa aaagaaagaa 6540
 attaaagact ttttagagtt taatgaaaat gaagccacaa cgtacccaaa ctttggggac 6600
 acaatgaaag catttctaag agggaaaactc atagctctga gtgcctccaa gaagaaacgg 6660
 gggacagcac atactagcag cttgacaaca catctaaaag ccctagaaaa aaaggaagca 6720
 aattcaccca agaggagtag acggcaggaa ataatcaaac tcaggggtga aatcaacca 6780
 gtggaacaa gaagaaatat tcaaagaatt aaccaaacga ggagttggtt ctttgagaaa 6840
 atcaacaaga tagataaacc cttagctaga ctactaaag ggcacaggga caaaatccta 6900
 attaacaaaa tcagaaatga aaaggagac ataacaacag atcctgaaga aatccaaaac 6960
 accatcagat ctttctacaa aaggctatac tcaacaaaac tggaaaacct ggacgaaatg 7020
 gacaaatttc tggacagata ccaggtacca aagttgaatc aggatcaagt tgatcatcta 7080
 aacagtccca tatcacctaa agaaatagaa gcagttatta atagtctccc aacaaaaaaa 7140
 agcccaggac cagatggggt tagtgcagag ttctatcaga cttcaaaga agatctaatt 7200
 ccagttctgc acaaactatt tcacaaaata gaagtagaag gtactctacc caactcattt 7260
 tatgaagcca ctattactct aatacctaaa ccacagaaag acccaacaaa gagagaactt 7320
 cagaccaatt tctcttatga atatcgatgc aaaaatcctc aataaaattc tcgctaacca 7380
 aatccaagaa cacattaaag caatcatcca tcctgacca gtaggtttta ttccagggat 7440
 gcagggatgg tttaatatac gaaaatccat caatgtaatc cattatataa acaactcaa 7500
 agacaaaaac cacatgatca tctcgttaga tgcagaaaac gcatttgaca agatccaaca 7560
 ccatttcag ataaaaagttt tggaaagatc aggaattcaa ggcccatacc taaacatgat 7620
 aaaagcaatc tacagcaaac cagtagccaa catcaaagta aatggagaga agctggaagc 7680
 aatcccacta aaatcaggga ctagacaagg ctgcccactt tctccctacc tgcccacttt 7740
 ctccctacct tttcaacata gtacttgaag tattagccag agcaattcga caacaaaagg 7800
 agatcaaggg gatacaaatt ggaaaagagg aagtcaaaat atcacttttt gcagatgata 7860
 tgatagtata tataagtac cctaaaaatt ctaccagaga acacctaac ctgataaaca 7920
 gcttcggtga agtagctgga tataaaatta actcaacaa gtcaatggcc tttctctaca 7980
 caaagaataa acaggctgag aaagaaatta gggaacaaac acccttctca atagtcaaca 8040
 ataataataa atatcttggc gtgactctaa ctaaggaagt gaaagatctg tatgataaaa 8100
 acttcaaatc tctgaagaaa gaaattaagg aagatctcag aagatggaaa gatctcccat 8160
 gctcatggat tggcaggatc aacattgtaa aaatggctat cttgcaaaa gcaatctaca 8220

gattcaatgc aatccccatc aaaattccaa ctcaattctc aaacgaattg gaaggagcaa 8280
 tttgcaaatt tgtctggaat aacaaaaaac ctaggatagc aaaaagtctt ctcaaggata 8340
 aaagaacttc tggcggaatc accatgccag acctaacgct ttactgcaga gcaattgtga 8400
 taaaaactgc atggtactgg tatagagaca gacaagtaga ccaatggaat agaattgaag 8460
 acccagaaat gaaccacac acctatggtc acttgatctt cgacaaggga gctaaaacca 8520
 tccagtggaa gaaagacagc tttttcaaca attagtgtctg gcacaactgg ttgatatcgt 8580
 gtagaagaat gcgaatcgat ccatacttat ctcttgtac taagggtcaaa tctaagtga 8640
 ttaaggaact tcacataaaa ccagagacac tgaaacttat agaggagaaa gtggggaaaa 8700
 gccttgaaga tatgggcaca ggggaaaaat tctgaacag aacagcaatg gcttgtgtctg 8760
 taagatcaag aattgacaca tgggacctaa tgaaactcca aagtttctgc aaggcaaaag 8820
 acaccgtcaa taagacaaaa agaccaccaa cagattggga aaggatcttt acctatccta 8880
 aatcagatag gggactaata tccaacatat ataaagaact caagaagggtg gacttcagaa 8940
 aatcaataa ccccatataa aaatgggggtc cagaactgaa caaagaattc tcacctgagg 9000
 aataccgaat ggcagagaag cacctgaaaa aatgttcaac atccttaatc atcagggaaa 9060
 tgcaaatcaa aacaaccctg agattccacc tcacaccagt cagaatggct aagatcaaaa 9120
 atttaggtga aagcagatgt tggcgtggat gtggagaaag aggaacactc ctccattgtt 9180
 ggtgggagtg caggcttgta caaccactct ggaaatcagt ctggcggttc ctcaaaaaat 9240
 tggacatagt actaccggag gatccagcaa tacctctcct gggcatatat ccagaagaag 9300
 cccaactgg taagaaggac acatgctcca ctatgttcat agcagcetta ttataatag 9360
 ccagaaactg gaaagaacct agatgccct caacagagga atggatacag aaaatgtggt 9420
 acatctacac aatggagtac tactcagcta ttaaaaagaa tgaatttatg aaattcctag 9480
 ccaaatggat ggacctggag ggcatcatcc tgagttaggt aacacattca caaagaaact 9540
 cacacaatat gtactcactg ataagtggat actagcccca aacctaggat acccaagata 9600
 taagatataa tttgctaaac acataaaact caagaagaat gaagactgaa gtgtggacac 9660
 tctgccccct cttagatttg ggaacaaaac acctatggaa ggagttacag agacaaagtt 9720
 tggagctgag atgaaaggat ggacctgta gagactgcca tatccaggga tccaccccat 9780
 aatcagcatc caaacgctga caccattgca tacactagca agattttatc gaaaggacct 9840
 agatgtagct gtctcttggt agactatgcc ggggcctagc aaacacagaa gtggatgctc 9900
 acagtcagct aatggatgga tcatagggt cccaatggag gagctagaga aagtagccaa 9960
 ggagctaaag ggatctgcaa ccctataggt ggaacaacat tatgaactaa ccagtacccc 10020
 ggagctcttg actctagctg catatatatc aaaagatggc ctagtgggcc atcactggaa 10080
 agagaggccc attggacttg caaactttat atgccccagt acaggggaac accagggcca 10140
 aaaaggggga gtgggtgggt aggggagtgg ggggtgggtgg atatggggga cttttggtat 10200
 agcattggaa atgtaaatga gctaaatacc taataaaaaa tgggaaaaaa agacttatga 10260
 attttataag tcaattatgt atcacaatag ttctctgaaa ttattgataa tttctataat 10320
 tttctagtc aaattttggg aacattgggt aaaagtaat atgatcttca attgaaaata 10380
 attttactta ttatttttct atttgatcc cttctcttgc cttattgctc cagctaatgc 10440
 ttcaatcaca ttatggataa gcagtaggga tagtgagcat tcctttccca ttttgatttt 10500
 aatggtgctt attaatgttt tttattaatt taggaagata ttggccatag ttttgacata 10560

cataaccttt attatgttgg aatatatttc ctacagtcct acttgttctt tggcttttat 10620
 taaaaagaca tgttgaggcc atcatgggcg cgaactcagt gggccctagc acaccagga 10680
 tcttggaatc actggtgagt ggaacgcaac atctgttcca aaaaaccag agggctcttgt 10740
 gccagcagga acaaggacaa aggaaacctg ctcaaccagc tgctgggggtt tgttcccatt 10800
 ggcgccagcc ccatctgac ttggacgcat actcagcagg ccatagcaca cccagtatct 10860
 tgggattact aacaccagtc tgctcaggag agcacataag cagcagaagc aacagagctt 10920
 cttggacagg gtcccttcgg gccttcaccc tcagccagga ggcagagctg agaccagac 10980
 ccctgggtac cttccccatc agaggagagt tggcctacgg ggagtactct gacctcagaa 11040
 ttcaggaggt gaatctgggc tgcagaattc tgtgcacctt tcctgcaaga ggaaagcttg 11100
 cctgcagaga gtgctctgac cactggggatt caggaaagtt agtctctcag gagtgcctgac 11160
 agaggctaaa gaatcacagg aggaacaagc tccagacaga gatagctaca acatctaaca 11220
 caagagatta ccagttggtg aaagaaaaac ctaagaatct taataacagg agccaagacc 11280
 actcagcatc atcagaaccc agtacacca ccacagtgtg ttttggatat cccaacacac 11340
 ctgaaaagca agactctcat ttaaaatcat atctcatgat ggtggtagaa aattttaaga 11400
 atggcattaa taactcactt aaagaaatat aggagaacac tgctaaacag gtaaaaaccc 11460
 ttaaagagga aggacaaaaa cccctcaagg aattacagga gaacactgct aaacaggtag 11520
 aagcccttaa agaggaaaca caaaaatccc tcaaggaatt acaggagaac atggctaaac 11580
 aggtagaagt ccttaaagaa ctacaggcaa aactgctaa acaggtagaa gtccttaaag 11640
 aagaaacaca aaaatccctt aaagaattac aggaaaacac aaccaaagag gggatggaat 11700
 tgaacaaagc catccaagat ataaaaatgg aagtagaagc aatgaagaaa acccaaaggg 11760
 aaacaactct ggagatagaa accctaggaa agaaatcagg aagcatagat gtgaacatca 11820
 gcaacagaat acaagagatg gaagagagaa tctcaggtgc agaagattcc atacggaaga 11880
 tggacacaac aatcaaagaa aatgcaaaat gcaaaaagat cttactcaa aacatccagg 11940
 aaatccagga caaatgaga agaccacacc tatggataag aggagtagat gagaatgaag 12000
 attttcaact taaagggccg gcaaatatct tcaacaaaat tatagaagaa aacttcccaa 12060
 acctaaagaa tgacatgccc atgaacatac aagaagccta cagaactcca aatagactga 12120
 accagaaaat aaattcctcc caacacataa taattagaac aacaaatgca ctaaataaag 12180
 agagaatatt aaaagcagta agggaaaaag gacaagtaac atataattgc aggcctatta 12240
 gaattactcc agacttctta caagagacta tgaaggctag aagatcctgg acagatgtta 12300
 cacagacacc aagagaacac aaatgccagc caaggctaat ataaccagca aaactctcaa 12360
 ttaccataca tagagaaaca aaggattcca tgacaaaacc aaattcacac aatacctttt 12420
 cgtgaatcca gtccttcaaa ggataataaa gggaaaacac caaaacaatg atggaaatta 12480
 tgccctagaa aaagcaagaa aataaccctt caacaaaact aaaagaagac agccacaaaa 12540
 acagaatgcc aactctaaca acaaaaatga caggaaagca caattacttt tccttaatat 12600
 ctcttaatat caatggattc aattcccaa taaaaagaca tagactaaca gactggctac 12660
 ataaacagga ccaacatfff gctgcttaca ggaaacccac ctcatggaaa aagacagaca 12720
 ctacctcaga gtgaaaggct ggaaaacaat tttccaagca aatggtccaa agaaacaagc 12780
 tggagtatcc attttaatat ctaaaaaaa tcaacttcca acccaaagtt atcaaaaaag 12840
 tcaaggaggg gcacttcata tgcattaaag gtaaaatctt ccaagatgaa ctctcaatff 12900

tgaatatcta tgctccaaat gcaagggcat ccacattcat taaacaatag tatagtaaag 12960
 ctcaaaacac atattgcacc tcatacaata atattgggag acttcaacac ccaactgtca 13020
 tcaatggaca gatcctggaa acagaatcta aacagagaca cattgaacct agcagaagtt 13080
 aggaacaaca aggatttaac agatatctac agaataatatt atcttaaaac aaaagtatat 13140
 acccttcttct cagcacctca tggtagcttc tccaaaactg accatataat tggtcacaaa 13200
 acaggcctca acagatgtaa aactattgag attatcccat gcacccatc agatcaccag 13260
 ggactaaggc tgatcttcaa taaaaataat aataaatatt agaaagtcaa cattcacgtg 13320
 gaagctgaac aacactctac tcaatgatata cttgatcagg gaagaaataa agaaagaaat 13380
 taaagacttt ttagagttaa atgaaaatga agccacaaca tacccaaact tatgtgacac 13440
 aatgaaagca ttcgtaagag gaaaactcat agccctgagt gcctccaaaa agaaactaga 13500
 gagaatcata cactaacagc ttgacaacac acctaaaagt tctagaacaa aggaagcaa 13560
 attcacccaa gaggagtaga cagcaagaaa taatcacact cagggttgaa atcaaccaag 13620
 tggaaacaaa aagaactggt cagagaatca accaaaccag gagctggttc tttgagaata 13680
 tcaacaagat agataaaccc ttagccagac taactaacgg tcacaggagc agtatcctaa 13740
 tgaacaaaat cagaaatgaa aagtacccaa ggagctaaga ggttcggcaa ctctatagga 13800
 ggatcaacaa tatgaagtaa ccactacccc cacagaactg agtctctagg tgtatatgta 13860
 gcagaggatg gcctagtcgg caatcaacag gaggagaggc ccttggaag attatatgct 13920
 ccagtatagg ggggtggtta catgtagaga ttccacctca gaccagtcag aatggctaag 13980
 atcaaaaact caggtagacag cagatgctgg catggatgtg gagaaagagg aacactcttc 14040
 cattgctggt gggattgcaa gcttgtaaa acactttgga aatcagttta gcggttcac 14100
 agttaattgc acatagtact accggaggat tcagcaatac ctttctgtg cattggagaa 14160
 aacagaaaac tctgagatgg aagctctgct gctggctctt gtgtttgctt ggatttgctt 14220
 tagaagtggg tcgaatggac agtcaatga aaccaggtg tcatgaaata ataagtataa 14280
 tatataaaaa attcttattt cattattcat ttatctcaa tgctgagcaa cacctcaata 14340
 tcatttacta aatatttatg tactagagaa atcactcatt caggagcaa gtcaggga 14400
 atgcaacact ctaaatagaa tatgatttaa tatttagttt catatgactt aatattta 14460
 atttttattt tagacatttt acatttagac ttccacacac acatatatat gtatgtatgc 14520
 atatatatat atgtatatgt atataaacag catgcaaact gcaattacaa acattaaaat 14580
 ataccagata aaatgttagc cttattatat gccattgta gtattatgat ttcaaaataa 14640
 aataggatat aattacatgt cttcatatta atcactcatg taaaataat attaatgtc 14700
 agcatctcgt cacctgtgtc tttttatccc tctgttttcc tcaaagagat ttatataaat 14760
 gtcagattct gtaaaccgtt gggtcacact catgtctgca ttgaaaacaa atattattta 14820
 ctgtcaattt tatattttct cttttctatt tagagcagat tttaggatgat aaaaccaga 14880
 gaccaaatga aatattttgt tttctgtgat atttgtaaac tcagtcttaa atatgtcaaa 14940
 agtctttcac cgttatgctt taaatgtaga tttggacaat tgtgtcacct tttgtttgta 15000
 cacttcaggg aacagaaaaat ttactctgta tttaggaatt gtattattga ttgtatgtca 15060
 cactatacaa taaatggaat atgttcaatt gcatttagta atttttattt ttttctctgc 15120
 aatacatattt gattgtattc attcctctca actctcagat cttccccac ctccctacct 15180
 acacaaattc atgttcttct tctaacaaaa atatggaata taagtttttt ttgtttttta 15240

```

tttttttttt tttttgagac agggttttctc tgtgtagccc tagctgtcct ggaactcaat 15300
ctatagacca gactggcctc gaactcagaa attcacctgc ctctgcctgc caagtgcctgg 15360
gattaaaggc atgtgccacc actgcccagc tagaatataa gttttttttt aaagattttt 15420
ttatttatta tatgtaagta cactgtagct gtcttcagac actccagaag agggagccag 15480
atcttggttac agatgggtgt gagccacat gtgggttgctg ggatttgaac tccggacctt 15540
cggaagagca gtcgggtgct cttaccact gagccatctc accagcccta gaatataagt 15600
tttaaggagc agaattgtat acttctcatt aaaaatcaaa aatttcccct ctcaagctaa 15660
agtatttggt ggagatgaaa gaaaacatcc atttatttct ctaatggcat cttcattctc 15720
agatctcagg tgattggtac accattgcca tagcagccac agatcttgat gtgatcaccg 15780
atgatggatt gttgaaactg tttttccgtc atcttgagtg tactgaacaa tgcaaagaaa 15840
tcatacctgac attctatggt gagtaagcta accttgctgc aatctaaagg ttcagacatt 15900
ttgatatgat aggaggtatt gacacatttc ccagactgac agtttcatga cactgtcact 15960
taccacaata tatacataat tccaaaatag aaaataatgc tgaggtattg ttccacattt 16020
caaataaaat acatttaata tgaatattta tgaatggtaa tataaacaat attaataatta 16080
ctaaaatatt taatatattat aatgtatggt tcctatacat ttaaattatt taaaacagca 16140
tgcataattat aatgacaaat gatattcggg atactggata gaatgtatgt catattgtat 16200
atatgattac aatataaatt atgacttaca tttatatatg attacaatat aaaatgagtt 16260
gtatactaca tgtatatata aatgaacatg ttatgtgtgt acttacaata ttgtatttta 16320
tataatatca tatttcacat taatatcaaa tttgtggct ctatactaca gaaaatatca 16380
ggctagaaaa aattgctcag tgaataaagt acttttaaat ttatttataa catttgtgtta 16440
ttttatgata acatacacat gtcactatgt aaaaattatt atatttataat gtcatatatc 16500
atactttata ttttaattat acctatataat tattgtttgt tgtaaagat ttgtgtttta 16560
tggtattcct gtttgtgtga aagtgtggat ctctgcatct atatgtgttt cttgtgcttt 16620
ttctttgtct cttgtgtttt ttttttttct gtttctttgc tttgccctca tctggtttgc 16680
ttttatttat ttatttcttg tcttagtat gcattctcat tttctaatga aagaaagtgt 16740
gagaatttgg atgggtggaa aggttgggag gatatggaga tataggaagg gaaaccataa 16800
tcagaacata gtatatggaa atattctttt aattaataaa acgatgggtt ttagttatat 16860
caagtgtctg gaaattagtt ttaaatagtt tttcatagtt ttaattgtta attccagtca 16920
tagaagtggg aagtatttca gatggaaaaa tagcatttgt atcactaagc agcttgtgac 16980
caagaccatt tcagatcttg tgggtaagac tgtcaatcac ccatagctgg aatggttgac 17040
aattaatggc tcctggggga ggaataatta tattacttta agaataatag cacttgtggg 17100
tttacattca tgcacatatg ttcaatgata actggacata attggttact tctttaaaaa 17160
gaaaggagga aaggagaga gaatctggga tttggaagga ctggactaga tgaaggtgga 17220
tccaagtatg ctcttgcatg tatggaatc tcatatgtac agcagtgact ggaagtatat 17280
aaacttcaat agcaataaat tcaggacata tagagaaata ggaaagcaga aacagggggc 17340
tatataagat cacattttat tttatgtgtg tatgggatc tacaaagaaa agttaagtgt 17400
aaatataaaa gtacttaaaa taaattcata gatcagcata caattaggac tagggtaaat 17460
aaagatccca tatcccctaa agaaatagaa gcagttatta atagtctccc agccaaaaaa 17520
agcccaggac cagatgggtt tagtgcagag ttctatcaga cttcaaaga agatctaatt 17580

```

```

ccagttctgc acaaactatt tcacaagata gaagtagaag gtactctacc caactcattt 17640
tatgaagcca ctattactct gatacctaaa ccacagaaag atccaacaaa gatagagaac 17700
ttcagaccaa tttctcttat gaatatcgat gcaaaaatcc ttaataaaaat tctcgctaac 17760
cgaatccaag aacacattaa agaaatcatc catcctgacc aagtaggttt tattccaggg 17820
atgcagggat ggtttaatat acgaaaatcc atcaatgtaa tccattatat aaacaaactc 17880
aaagacaaaa accacatgat catctcgta gatgcagaaa aagcatttga caagatccaa 17940
cacccattca tgataaaaagt ttgggaaaga tcaggaattc aaggcccata cctaaacata 18000
ataaaagcaa tctacagcaa accagtagcc aacatcaaag taaatggaga gaagctggaa 18060
gcaatcccac taaaatcagg gactagacaa gggtgcccac tttctcccta ctttttcaac 18120
atagtacttg aagtattagc cagagcaatt cgacaacaaa aggagatcaa ggggatacaa 18180
attggaaaag aggaagtcaa aataacactt tttgcagatg atatgatagt atatataagt 18240
gaccctaaaa attccaccag agaactccta aacctgataa acagcttcgg tgaagtagct 18300
ggatataaaa ttaactcaaa caagtcaatg gcctttctct acacaaagaa taaacaggct 18360
gagaaagaaa ttagggaaac aacacccttc tcaatagtca caaataatat aaaatatctc 18420
ggcgtgactc taactaagga agtaaaagat ctgtatgata aaaacttcaa gtctctgaag 18480
aaagaaatta aagaagatct cagaagatgg aaagatctcc catgctcatg gattggcagg 18540
atcaacattg taaaaatggc tatcttgcca aaagcaatct acagattcaa tgcaatcccc 18600
atcaaaaatc caactcaatt cttcaacgaa ttagaaggag caatttgcaa attcatctgg 18660
aataacaaaa aacctaggat agcaaaaact cttctcaagg ataaaagaac ctctgggtga 18720
atcaccatgc ctgacctaaa gctttactac agggcaattg tgataaaaac tgcattgtac 18780
tggtatagag acagacaagt agaccaatgg aatagaattg aagaccaga aatgaacca 18840
cacacctatg gtcacttgat cttcgacaag ggagctaaaa ccatccagtg gaagaaagac 18900
agcattttca acaattgggt ctggcacaac tggttgttat catgtagaag aatgcgaatc 18960
gatccatact tatctccttg tactaaggct aaatctaagt ggatcaagga acttcacata 19020
aaaccagaga cactgaaact tatagaggag aaagtgggga aaagccttga agatatgggt 19080
acaggggaaa aattcctgaa cagaacagca atggcttgct ctgtaagatc gagaattgac 19140
aaatgggacc taatgaaact ccaaagtctc tgcaaggcaa aagacaccgt caataagaca 19200
aaaagaccac caacagattg ggaaaggatc ttacctatc ctaaatacaga taggggacta 19260
atatccaaca tatataaaga actcaagaag gtggacttca gaaaatcaaa taacccatt 19320
aaaaaatggg gtcagaact gaacaaagaa ttctcacctg aggaataccg aatggcagag 19380
aagcacctga aaaaatgctc aacatcetta atcatcaggg aaatgcaaat caaaacaacc 19440
ctgagattcc acctcacacc agtcagaatg gctaagatca aaaattcagg tgacagcaga 19500
tgctggcgtg gatgtggaga aagaggaaca ctctccatt gttggtggga ttgcaggctt 19560
gtacaaccac tatggaaatc agtctggcgg ttctcagaa aactggatat agtactaccg 19620
gaggatccag caatacctct cctgggcata tatccagaag atgcccacac tggtagaag 19680
gacacatgct ccactatgtt catagcagcc ttatttataa tagccagaag ctggaaggaa 19740
cccagatgcc cctcaacaga ggaatggata cagaaaatgt ggtacatcta cacaatggag 19800
tactactcag ctattaaaaa taatgaattt atgaaattcc tagccaaatg gatggacctg 19860
gagggcatca tcctgagtga ggtaacacat tcacaaagga actcacacaa tatgtactca 19920

```

ctgataagtg gatattagcc caaaacctaa gatacccaag atataagata caatttccta 19980
 aacacatgaa actcaagaaa aatgaagact gaagtgtgaa cactatgccc ctccttagaa 20040
 gtgggaacaa aacacccttg gaaggagtta cagagacaaa gtttggagct gagatgaaag 20100
 gatggaccat gtagacacta gcataatccg ggatccatcc cataatcagc ttccaaatgc 20160
 tgacaccatt gcatacacta gcaagattat gctgaaagga ccctgatata gctgtctctt 20220
 gtcagagtat gcctgggcct agcaaacata gaagtggatg ctcacagtcg gctattggat 20280
 ggatcacatg gcccccaatg aaggagctag agaaagtacc aaagaagcta aagggatctg 20340
 caaccctata tgtggaacaa cattatgaac taaccagtac cccggagctc ttgactctag 20400
 ctgcatatgc atcaaaaagat ggcctagtcg gccatcactg gaaagagagg ccatttggac 20460
 acgcaaactt tatatgcccc agtacagggg aacgccaggg ccataaaagg ggagtgggtg 20520
 ggtaggggag aggggggtggg tggctatggg ggacttttgg tatagcattg caaatgtaaa 20580
 tgagcgaaat atctaataaa aaatggaaaa aaaaaagaa agataagatt gcactaaaga 20640
 tcattgtgac ttcaatgaat gttggccacc atgtgcaaaa tgggtttaga tgattttaac 20700
 taacctaaact ggaagtataa atcaaaaaag ttaatgctga aaaaatttac tcataataaa 20760
 cgttatttga ggtttagcag cagggaagtt agcatggatt ctgtgtgaag agaaaagaat 20820
 gatattgttt attttctgta caataacttg ttctcagtta ataataaatt agagattata 20880
 catcaagaag aattctagaa acatgtcatt gaataataca tgtgaaaatg aatctgtttc 20940
 ccattttata aatataatta gaatctatat gaaggttta atatccatt ccttgcttct 21000
 ttcaaagtgt tcattattta agatggcact attgaaatct gagtagaaaa aaatggcata 21060
 aaatatatca ttacaacca gtaacaacaa agacacatat gaattataga tttcatatat 21120
 aactgatttt gtattcctca gatctatatc tgatatgtaa atacaattat ctgcttgtac 21180
 atttactgtg caggctctata tgcccatccc cacctagaat cactgatgtc tatataaatt 21240
 tttgctgaat aaatataagt tgaattaaca gaagtcaaat tatgcattag acaatggtag 21300
 attcagtggg gtatagtagc acatgccttt aatctcagca cacatgaggc agaggctggt 21360
 gtctctgtgt ttgaagccgg cttggtctac agagttccag gatagccagg tctgttaaac 21420
 agataaacca tgtcatagaa aaaaagaaag aatgaaagag caaaggaagg aaggagagaa 21480
 ggaaggaagg aaggaaggaa ggaaggaagg aaggaaggaa ggaaggaagg aaggaaggaa 21540
 ggaaggagaa gaaggaagga aggaaggaag gaaggaagga aggaaggaag gaaggaagga 21600
 aggaaggaag gagaaaaaca aacaaataat gatgaattca gtgacctaga aacagaagtg 21660
 tttatagaag atagttagat agatagatag atagatagat agatagatag atagatagat 21720
 agatagatag atatagatgc tttaaaaaaa agactacaca tatcaaagta atctgcagct 21780
 actaccaggt aaagtatatt gatatcgttg cttgaacctat tgcacataaa caatcctcag 21840
 tgacaaagtc aactgttgtg gtttctatgg cacagtgagt cagtgtccag tgatctgaga 21900
 aggaagatgt tcgttatgcc catcattaca ctattcaggt cacacaggac catgataagg 21960
 gatatacata tctgtctctt tttgttttag ggtagatgaa gaatgtgaaa agtttgaagc 22020
 taacgcacag acctaccaat cagatgggtt tacttttacc tgtgagtata tgtgatcttt 22080
 ctggaatatt taaattcctt gttactggta tcatcccata gcctgagcct ggaagaattt 22140
 cttcttgcag ctttccacca ggccttacac ctctcactgg gtctgtgaag aagtcaggat 22200
 ctcatcacac atgttacatt aaattgccaa aataaatgaa caaaactctc aggtcttatt 22260

```

gtgagatggt cacaataaaa acaactgaga atatatttta ttagagtaa ttaagtctc 22320
acttacataa taattattgc gactattcaa taaatagtc agttgggtcaa taaaaataa 22380
atatgtaggg caagagtgat ggtcagcagt taaggaggt tgctgctctt ccaaatttc 22440
cctattctgg tcacagtagt cacatttgat ggtgcacaac attctgtaac tctggttttt 22500
ggagatccaa tgttttctac tggactcgaa gaacaccctg gtcacatgca aaagaaaaac 22560
aaaaacaaga caaaaaacac cacaagtgc ctttacaca tagatgaaaa taaatcaat 22620
ttttaaaaaa gataaaatat tcaagtgttt ggaaagacat ttgataaaaa gagtttggca 22680
agtacattat aattagcaga catcagaagt taataatggc agtgattaaa atgacagatt 22740
gaaatattca taccaaagt tacttaattt aaaattcaat cccaatgaga agaaaactgt 22800
ataggttttt gtttgaata attggcaata atttgagta atcagttttc taaatggaa 22860
tgaccaagtg cttaagtaac ttactttgta gaaaagtgt caatatatta ttctcatctc 22920
agtttgaaaa atatctattt ttaacttaa tgcaactgag gggattatta atgaatcagt 22980
gacactgaag aaggaagggg acgcatttct ggggtccttg aattgagcct gctaaatga 23040
aatggaatag tgtaaaatg tttgaattct gacatctacc tttttacact acagatccag 23100
gtgagtgtta ctttaggatt tcatatatat caagtgaag tatgatactt attagttact 23160
gtttgaagga tggtttgcac tggaaatccg cactcatttt gcttggtgaa tatcatgact 23220
ccttcttatt atgatgacga ttattattat tactctttct tatgcctgca tatgggtctg 23280
cataccacat gtgtgcttgg tgtacacaga caccagaaga gagcatcaga taccctgcaa 23340
ctggaatgac aaatggttgt gagccaccac gtgagtgatg ggaattgagc ccagtttccc 23400
tgaagagcag ccagtgtctt taacctcagg accatttttc cagccccacc tagatctttt 23460
tctataatac agaacatggc tacattatgt ctgcttttga tttaaaagaa aaatttatgc 23520
ataggttggt tatataaaat gtatttattc atagatgtgt ctacatagga gattcaatat 23580
tccccctgac tgaatcaagg atgcaaaaac attttatcaa aaataaagat ttatgtccac 23640
cagggacttc catcagaaag atttccttaa attggacaca tacaactgtg tgatacaaga 23700
cattccatgg tgcccttatt gaagtatcag agttcactca ttggtagatg gcttagggaa 23760
cctcataatc caaaaaataa aatttttagt tagatgcttt aaaggaaaat catgttaggt 23820
ataagaaata tgaaggggga ggattttttt attgtcttgt ttctggaaag ttgacattat 23880
ttactcccc ctcattccat caggggtctg gagtaggcag gaatggatat gatgataata 23940
atataggttg agtaggaaga aaaagtcatt attttgaaa ccttctgaaa tcttaaatgc 24000
aactaacttg aattccaaag tggttatgtt tagagaatac tactaccag ggagctatta 24060
gaggaggaca gggaatgtgc tcaagtcaca ggagcatatc ctatgtgctt agaatgtatt 24120
caattgtgaa ctcaataggt ttacaactgt gaatgatgtt tttgtgaact caataggttt 24180
acaactgtga atgatgaaat gatgttccat gtttttagtc cttgtcaagt caccatgaaa 24240
gacagaggtg ggagtgagga gaggattgga cacacagtaa gataacatgg aggatacatt 24300
ctactctgaa gaacattcca catgattctc ttcatttttt ccacacaatg aagggaagg 24360
aaatgggtgt agtgaaattt acagatgagt gtactaggag gatacttcca aaggagaatg 24420
taagatatgt gcttgagaaa ggtaataagg caatgacat agaggatacc ctagatgtcc 24480
cctgagactt tatatgaaat aaaaaattta aaacatatt atatttgatt caaatttact 24540
actcaacaat ttttgaagtt ataatcctta aaacaatgtt gtttcccacc ctgttttgca 24600

```

gatatttgtc ctaaataagg acatgcatac cttgggtgag tagaaacata atgacagatc 24660
 ccattcttac taaaaatcaa tgctttttta tttttatcgc ttcttggcct tttggctgag 24720
 atcaagtgtat ttttttattt gttactttta tgaaaaaaaa aatcgatggg tggatgtgat 24780
 gtgggtgcag tgctgttggg aaacagaaga tggcaccaga tcccacagac tcacatggag 24840
 ctgagacata agtcttgtgc aagatcagag atgactcttt ttttttctt tccatttttt 24900
 attaggtatt tagctcattt acatttccaa tgctatacca aaagtccccc ataccacccc 24960
 acccccactc ccctaccgcg ccactccccc tttttggccc tggcgttccc ctgttctggg 25020
 gcatataaag tttgtgtgtc caatgggcat ctctttccag tgatggccga ctaggccatc 25080
 ttttgataca tatgcagcta gagtcaagag ctccggggta ctggtttagt cataatgttg 25140
 atccacctat aggggtgcag atccctttag ctcttgggtt actttctcta gctcctccat 25200
 tgggagccct gtgateccat cattagctga ctgtgggcat ccacttctgt gtttgctagg 25260
 ccccggcata gtctcacaag agacagctac atctgggtcc tttcgataaa atcttgctag 25320
 tgtatgcaat ggtgtcagcg tttggatget gattatgggg tggatccctg gataaggcag 25380
 tctctacatg gtccatcctt tcctctcagc tccaaacttt gtctctgtaa ctcttccaa 25440
 ggggtgtttt ttcccatctc taaggagggg catagtgtcc acacttcagt ctccattctt 25500
 cttgagtttc atgtgtttag gaaattgtat cttatatctt gggatcccta ggttttgggc 25560
 taatatccac ttatcagtga gtacatattg tgtgagttcc tttgtgaatg tgttacctca 25620
 ctccagatga tgccctccag gtccatccat ttggctagga atttcataaa ttcattcttt 25680
 ttaatagctg agtagtactc cattgtgtag atgtaccaca ttttctgtat ccattcctct 25740
 gttgaggggc atctgggttc tttccagctt ctggctatta taaataaggc tgctatgaac 25800
 atagtggagc atgtgtcctt cttaccgggt gggacatctt ctggatatat gccaggaga 25860
 ggtattgctg gatccctccag tagtactatg tccaattttc tgaggaaatc ccagacggat 25920
 ttccagagtg gttgtacaag cctgcaatcc caccaacaat ggaggagtgt tcctctttct 25980
 ccacatcctc gccagcatct gctgtcacct gaatttttga tcttagacat tctgactggg 26040
 gtgagggtga atctcagggt tgttttgatt tgcatttccc tgatgattaa ggatgttgaa 26100
 cattttttca ggtgcttctc tgccattcgg tattcctcag gtgagaattc tttgttcagt 26160
 tctgagcccc attttttaat ggggttattt gattttctga agtctacctt cttgagttct 26220
 ttatatatgt tggatattag tcccctatct gatttaggat aggtaaagat ctttcccaa 26280
 tctgttgggt gtctctttgt cttattgacg gtgtcttttg cttgcagaa actttggagt 26340
 ttcattaggt cccatttgtc aattctcgat cttacagcac aagccattgc tgttctgttc 26400
 aggaattttt cccctgtgcc catatcttca aggettttcc ccactttctc ctctataagt 26460
 ttcagtgtct ctggttttat gtgaagttct ttgateccat tagatttgac cttagtacaa 26520
 ggagataagt atggatcgat tcgcattctt cgactcttat ccattgagtc tatcagccat 26580
 catactatcc ttctctactt aatttgetcc cttgagatct caagataaag agtcaatatt 26640
 ttaatttttg aaacaaagaa atccgtgaga tatgaaataa tgaagtttag cgtgaattct 26700
 gggcagccaa atagtgtgca gcttttgggt atgcacatat ttatgcattt ttctctgttg 26760
 tataaatctc agtatttacc ttggatatat gaaatctcag gatttgttca gaggtttaca 26820
 aaattaatat aattttatga aattcttcaa aataatatcc atacatggca tccatgtaca 26880
 cagatggaat cccatgaagc aactttgtca tggacaaaagg tccactttgt aatggatagg 26940

```

gtctactaag atccaacaca actcagacac tgaatcaata cagaaaacaa aaattttattg 27000
taatcaaact gctactgac aatcagcaac attgaacaga cttgggagct gaactatagt 27060
ccccagccaa aatgtttaca gggctttagg cctgaaagac acaaatatct atgtcaagtc 27120
acagttaaat ttttccatca attgagattc aggtataggg gacttttcta gaaacatttc 27180
tttgtggtag atttatcctg tcctcattgg ttagtttact taactgtggc agagtgactt 27240
gcccgacatt catgtctcaa cttgtcaacc aagggtgcgg tcaccctggg agatcttaga 27300
aacttaaaact ttgtttgaac cctattcaaa atggaagatt tattcaaaat ggctctttat 27360
tacaaatttc cctctgatac attgtcatc aaaggaatca attataaagt tatttaattg 27420
catataatat ttatatatag aactgagttt cataatgaca ttctttatac atgtatatca 27480
tacattttta tcatatttcc cccctttatc tactctttat tctaacctgt tgctttcctc 27540
atcccaacag ccgagtcttc attctacttt cacacacaca cacacacaca cacacacaca 27600
catatatgtg tgtgtatgtg tgtatgcata tatgtattgt atataaattt tattatagag 27660
tatagagcat attatatatt acattcacta tattatacat tgtcttgtgc attatattat 27720
atatatatga actttctggg gacacaatca atttaattag gactgcttgc ataagcatgt 27780
gtacagactt atttacagga gcatggacac aacatcagca tctagatcac taaaaatcat 27840
ctcaggetcc ccctaacaac catgacttgc ctgtaaagtc tcagaaatgt ttggggcctt 27900
gtgagtgagt ctctgaacc acccagcaac ttttattatc tataatccct cagaagaagg 27960
gggaccacat gaaccctgcc aattccacca atttggttca ggtcttcctt cattgaaaac 28020
ttaaggacat tatgtacta agaagaactc aactaaatta aacattttca ttctcatctc 28080
cacagatatt ataaagaata ttgaaattg taacttctca atggcaattg attcatctct 28140
gtgaagtcta attattctgc tccccatcct atgaagacct aagtcceaat ttattgcttc 28200
ttttctttcc tgcatttacc ccttgatga cgttactaac ttactgatta aattgatact 28260
gtatgcatac acacatatca gaagcatgct cttaaagttt ccaatgctta aaaatgtttc 28320
actatgcaca actcttaaaa aatatactca tctattatca agcaggataa atgtacttaa 28380
aagaatagtt aaagagttgt acagatgtct tagtcggtgc tcactaaaac ctgtctattg 28440
cctctagctt ctggggtagg atgtgtctca tgagcactcc cctacctagc tataattgca 28500
tggtcaggcc tcgcacacat aaccacatct gctttgagtt catgagcaca catcaccaca 28560
tctgctttga attcatatca atgggcactg cagaaattaa aaaaaaaaaa ccattaggtc 28620
ttacttcaaa agcctgtact tcacaaaatt ggaaaatcta aatgaaatgg atgattttct 28680
atatacatat cacttaccaa agttaaatca aggtcaggtg aacaacttaa aaagtcctat 28740
aactcctaag taaatagaca aagtcattaa aatattecca accaaaaaaa caaaaagccc 28800
agggccagat tgtttttagt cagaattcta ccgactttc aaacaagagc taataccaat 28860
atgcctcaaa ctattccaca aaaataggaa cataaggaac actacctaatt cattgtatg 28920
aggccaaaat caccctgata cctaaaccac acaaagactc acaaacaaa agactctcag 28980
accaatttcc ctatgaaca ttgatgcaaa aacactcaat aaaatattag caaactgaat 29040
cagagaaagc atcaaaaaca tcattcaaca tgatcaagta acattcatte aaagggttgt 29100
agggattttt caatgtatga aaataaatca acataattca caatataaac aaactaaaaa 29160
aaaaaactaa tcatctcatt atgtactaaa aaaggetttg acaaaatcca atctctttca 29220
tgttaaaagc cttggagaga tcaggatacg agcacatatc taaatacaat aaaagcaatg 29280

```

```

tacagcaagc caatagtcaa agtcaaatag agaaaaactt aaagcaattt tactaaaatc 29340
agggacaaga cacagctgac cactctctcc acatatattc aacattgtac ttgaacttct 29400
agctagagaa ataggaaaat taaaacagat caaggggata caaattggaa aggaagaagt 29460
caaagtatca ctcttttacag atggtgtgat agtactcata agtgaacca agaattatac 29520
cagagaactc ctacatctga taaacacttt cagcaaagcg gctggataca aaattaactc 29580
aaagaaatcg gtagccctct ttatacaaaa ttataagtgg gtcgagaaag aagttaggaa 29640
gaaaatacct ttcacaatag ccacaaataa tataaaatag ctaatagtaa ttctaacc aa 29700
gcaggtgaaa gatctgtatg acaagaattt caagtatctg aaaaagaaat taaagaagat 29760
atcagaagct agatcccaca tgcttatgga tcaattgaac taacaatgtg aaaattgcat 29820
ctctccctgc cttatggat catcagacaa tactggtcca tgttggtcaaa gggaacagag 29880
atgagagacg agaggttaac atgccctgtg agtacataca gtaaataaga tacatcagaa 29940
ccagatgcag ggaggcagac aaactttacc tggggtgatt caagaactat ataatttggg 30000
gatgctagaa aaatccaaga tggccagagg tcattgactg aagacttagg gtactgaaat 30060
aattcactag catgggaaag tatttcacga atctcagatg ctagctgaat gagttcttat 30120
caagagaaat aaagggatat ggactccaca ggaaaaccaa cagagtcaac tgacacagac 30180
ccttgagggc tcccagagac tgaactacca accaaagagt aagcatgagc tgtacctatg 30240
accctacaca catatgtagc agatgttcaa catggtcttt atgtaggtct cccaacaact 30300
agagtgggga ttgtccttga ttctgttgcc tgcttgtgga tcctgtttcc ctgagtaggc 30360
caccttgtct gtctcagtg ggagaggatc cacctagtcc tgcagtaact tgatgtacca 30420
gagtaagggtg atacccaaag aacacacacc cttctcaga ggagaaacgg aaggggaggg 30480
gagctgtgtg agggtgagac taggaagaga gagaggctga gattgggata taaagtgaat 30540
aaataaatta acagaaaaat aaattggaga ggaaaaagtc aaagtattgc tagatggttg 30600
gatagtatgc ataatctcta caaaaattct accagggaac tcctacagtt gataaacatc 30660
cttcagcaat gtagctggat acaaaattaa ctaaaaaaaa tcagtatctt ttctttatac 30720
aaatttgaaa tgggctgaga aagaattggg gagacaatac actttacaat agccacaact 30780
aatataagat aacttggtgt aattctaacc aagcaagtgg aagacccta tgacaagaac 30840
ttcaagtctc tgaagaaggg aatgtggta catttattaa atgggatact cctccagaag 30900
gggaaataac atagacttgg gaaatgtttt ggaatagtag gacataggac tgagttagcc 30960
agaggggtca aggacaccac aataagactc acacggtcaa ctaactcggg cctatggtag 31020
ctcacagaga ctaaatacacc aaccaaagag catgcatatg ctggaagtag gccccctac 31080
acatttggag cagatgtata gcttggctct catgtaggtc ccctaggaat tggagcaagg 31140
attgtctttg actctgttgc ctgcctttga aaccgtcct cttggctggc ctctcttgaa 31200
gggctacact gggaatggat gcaactaagta cttctgcaac ttgaagcacc aggactggtt 31260
gaggagaaaag gatgaggtaa tgggggaagg ggtttgtgag ggtagtacta ggagaagggg 31320
aggttgtaat tggggtgtaa agtaaaataa tagatagata gatgatagat agatgataga 31380
tagatagata gatagataga tagatgatag ataggtagat agatagatag atagatagat 31440
agatagatag atagatagat agatataaga aagaaaattc aaatactaga atccatattg 31500
tgatctaacc atgtaaaatt ctttcttcct acttgatatt ataaggtatt ctttacc aa 31560
agaaaaatat tatttcaagt ctggtttcta ataccatgaa atataaaatg tgattgcagc 31620

```

```

attgggaagg taaatcaaatt ttcatacagg agaagacatt tttcctgtct gatacttgaa 31680
atagtgtttt catgatatatt ttcattgaatt tcactgtctgc aaagatatat ttactcttgt 31740
gtttttaaac attatcataa tgaataaagg accttggttt tcaaggcata tacacctcct 31800
tcatggagta tataccactg caatccttag gcatttcaca caatgtaaca aatacaatat 31860
tgGCCcttaa ttaactacac aagcatgaag catcagggat gaattaatct caaatacaca 31920
cccagtatcc catcaaaatt atttgacaa taacacatca aacttatctt cctaaagggt 31980
tacttttttt ctaactccat aagctcatcc atcagtcatt gttttaatat acccgatatt 32040
aagtcaatat cttaaatgta atgagatata aatttttttt ctgacaaaca agaagggaag 32100
gattatggat ttctattttt ttgctcataa ggaaacatgg gtgacataat gtgctagttg 32160
agccattcaa acaacatgga cttcagattt tgattttctgc actgagtgga tgatacaaca 32220
agaggtaaaa ttggaagatg cactacetaa aacaaagaga tacaaccaa atctttaatg 32280
gttttttagac acatctttga ccatgaaaat atggcaaagg aaagtgtctt ttaaatgtct 32340
tcattattat ctgaactcaa aaattaatc acatcacagt gttcacactg tgaacactaa 32400
gtcacacata gtctcatctt gtcttcagga gacttttctg ggaattatca ttattttgat 32460
aggggaattt agaagagata gttgggtttt acaaagtgc agacaactga ccaacagatt 32520
ctctatgctg ggttccaaat gacacttctt ccatttcttg ccatcaaatg cagtaagtga 32580
aactaatccc actaaagaaa tgtaaagact atgtaaattg aacaagaaat aaaaaactcc 32640
cataaaatta ttataaatat ctataaagta agtaatagca ttctttttgt ataaaataag 32700
ctgagaccag agaggtttat agattcttga ttccaacacc tgatttaca aaaactgcat 32760
atatatatgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtatacat atatatatat 32820
atacatatac atatatatat acatatatat ataaaacaaa atcccttaaa gcattgatga 32880
acttcaataa ccttttctct atttgtacat ttaatttttt ctcttatttt ttaaaagtag 32940
aacataattt cttttttctt tagttttaag aatggtgaca ataaattaca taataataaa 33000
gagataagaa agaaaacaca tcagtcagca caatttgagt ttgcttacta agactgtttc 33060
tctcaacaga tgcagagtcc catagcaaaa ccttaggcag agcttgaggga gtcctgcaga 33120
ggatggggag gaaggatcac ctaaccagag gagtcaggga caccaaaagg acaaggctca 33180
cagaatgaac tgacatggag gctgtcagag atcaggggag cagtaggggt ctaataggcc 33240
ttgggtgtat atgttatggc tgagtgtagc ttatgttctt ctaggggttc taacaatgga 33300
agtaggacct atctctgact cttttgcctt cttatgggat cttttcactc cttttgggtt 33360
gcctagcaga gccttgacgt gatggtatat gcctgatctt attgtaactt gttataccgt 33420
gtttggttta aattgctggg aggctgctg tttttggaga ggacatggaa gggatggata 33480
tatgaaagag gggaggtaag agagacacag aggggaagggg aggaaggaga aactgcagct 33540
aggatgtaat atataacaga agagttaatt aattaattaa attttaaaaa agcctgtggt 33600
ggttttaata agctcagccc aggcatggc actattagga ggtgtggcct tgttggtgta 33660
ggtgaggctt ccttggaagt agtgtgtcac tgtgggggtg agctttgaga ctcttctcct 33720
agctgcttga aaacagtctg ctcttgatt ctttcaatg aggatttagg gctctcagct 33780
cctccagcac catgtcttcc tggatgtgc catgttccc acctggatga taatggactg 33840
aatctctgaa cctgtaagcc agcccaaat aaatattgtg cttcctaaaa tttgacttgg 33900
tcatcatgtc tcttcatagc aatggaaacc ctaactaaaa cagagcctct ctggctctta 33960

```

```

agccatgctg gctataaagc ctcacatatt acatgacata ttattataga aactttgtat 34020
cacaccctga atatcatatt tacaatattg taggtaatat tttcctctct aattatgaca 34080
tgtaaataaa ttacgtaatt atactcaaaa gaatttcttc tgacattatt gactacctta 34140
ggttttgttg cattttttatg tgttttattat tttatttgtt ttgttttgaa acacattcaa 34200
actatgttag caacggttat cctcaaactc aatatataga tcaggggggc ctcaaactca 34260
cagaaaacaa tatgactctg cttcccaaga cacagaatta acagtatgga tcaccatgct 34320
caattaatca cagggttaatg tatttttagtt ttttaattatg tagatattca ggtatctgca 34380
tatgagcaat gttaccaggt gagttcagta cctgacgagg gcagaagagg gagcagattc 34440
ctctggacct aaaaattacac atgattgtgc attgcaatat agttgctagg aactgaaccc 34500
aggctcgaag gaaagctagg actctgacct agtgagtcac cctaagccag attatttttt 34560
aataggatca gtgcacattt tctttgttgt gtatgatggc tagaatatgc ttgccctatg 34620
gaaattggca gtatgaggag gtgtgtcaat gttggggtag gtgtgacctt gttggaacat 34680
gtgtgacact gtgtgagtggt gttttgagge tcctatgccc aagctctgcc aatgaggaa 34740
gagagcctcc tgctggctgc ctgcagaaga aagactctcc tggtgcctt tggatcatga 34800
tgtagaactc tcagctcctt ccccagcacc atgtctgect gcagactgct atgcttcctg 34860
ccatgatgat aatcatgaac ctctgaacct gtaagggtgc cacaatgaaa tgtttgcctt 34920
taataagatt gccttggta tggtgtctct tcacaaatat ataccctta attcagacat 34980
tgtgtattac atcacattga ttgaagacag aatgtgtaca tgaaaaatca atttatttta 35040
tcaacaaaag aatcagtacc atggtaggag tatgggaaac aaatccatga agcagagatt 35100
ctggcttcat aggaaagatg aaaagaaaaa ctaagaaaag gatgagctct cttcattgtc 35160
atgattctga tttcatgaaa gaggtgatgt gggaaatact tctgatcttg ctgtcatctg 35220
tgaagcttca aaagtaaaaa acaagacaaa caaatgaaac agtaagatgt gcatgagctg 35280
gtgcttctga catgagcttt ctgagattgt aaatgaaaaa caaaaattaa tcgacacgga 35340
atatggtgaa aggtttgatt ttaaaaaatga cacatgtcac agggtttagac ctaggtttgt 35400
tcttggttga cttccataac tctcttccgg catttaaact gagagttttt ggtctaaatg 35460
taatctacca taacacctat gtgcaagggt gtgtctaagg agactttaca aagttcatgt 35520
acattttacag tatttccaca ttcattgtac actcttggct gtcacaaata tcacttattt 35580
tcaatagtca agtttcatta aattcttacc tattaccttt aagataaaag aaatcaacac 35640
tttggatatag gagagttgct tattcccatg ttataaatat taacagcaac ataaacgata 35700
gctttgccac cttggattat atatgtaatt agaattataa agagatttcc tctactaaag 35760
gcataactaa tagactaaag aatgaatttt tagcagatta aaatattaac aggctctgct 35820
gccctgttgt actcaccat attgtgtctt tattggttac aagtgtctgt gagagacaga 35880
aaggaaggaa ataaccacaa acaaaaagaca tagtttagag tccttaatat ctccagtac 35940
tttaataaat tttaaaaatc tgatttagac gactgaaatg atgattatcc tggatatctt 36000
caggtgcatt agtttgctgt gtgaagcaca atgttggttac ctgtgggcgc caagtgtggt 36060
atattctcct ttggaatatt gtattccttg accagcttcc caagctctg cttctgtgct 36120
ttgctcaggg tctctccttt tcctacatca cataaagcag aaaggaagaa aaagtgtagc 36180
ttacagtact ggggtggctca gaacagatgg agttataatg ggttgtgtga tattgatgca 36240
tggaacatc ttactttgtg ggccctccct caccatca gtctcattct gatcaaccta 36300

```

```

agatctctaa agtaaaaaga acacatttaa tgaagctgaa ctatgatagt ccacacccta 36360
atgaataata tcgttatttg tgggtggaatt gttattgttg ttattgccat catcactatt 36420
aatactccta ctactactat tataattatt cgtactttcc atatgaccgt atattttattt 36480
ccaaaaaggc ctgtacataa tcctgggtgtt tgaaatactt gaactaaatg tttgtccatg 36540
ctgacttcta ccttacttct gtgtagattc tggagtccgt gccttggata attgataatt 36600
atcaaaaataa gcagtgaat caggctgaac aggcctcatga acctgaatca attacgactc 36660
caacaccacc ccacctcacc acttacccaa cctcactacc agattccagt acccagtacc 36720
cagcctccag tcccctgcct ccaggcccaa gcccccaaat tgcctctgct tcctccattg 36780
cccctcaciaa ctttggtaaa caaagcaaga ttgttgggtt tatatatata tatatatata 36840
tatatatata tatatatata tatattatca tgacacaaag caaggctatc tggaaagagg 36900
taacctcaat taagaaagt ctacctcag actgctctgt gagaaacct gtagactcat 36960
tttctagatt gacagttgat atggaagtgt ccaccccact gtaggaaact cagcagcaca 37020
gttttctttg ttagtgtttg atggtagggt gcctagacta tgggtagtgc cacctctggg 37080
gagatgggcc tgggtgctaa gagaaagcat gctgaacaag acctggggag caagccagta 37140
agcagcactc ctccatgccc tgtgcatcag ttctgcctt caagttcttg gctgtttggt 37200
acagagacag atgggtcaat aattggaata ggattgaaga ccccaaaata cccccaacac 37260
acacacacat ggacacttga ttgttgacta agaagacact accatatagt agaaaaaaga 37320
gagcatcttc agcaaatcgt gctggcctac ctgggtgtct gtatgaagaa gaatacaaat 37380
tgatacatat ttctcaccct gtacaaagca caagtccagg tggatcaaaa tcctccacat 37440
aaaatcatat atactgaatc taatagaaga aaaagtagga aatagcttgg aaggtattgg 37500
cacaggaaaa aattttctga accaatggct cagctctaag atcaacaatt gacaagtgga 37560
acctcataaa actgaaaagt gtcttcaaga caaaggacac tgttagtagg aaaaacagca 37620
acctacagat tgggaaagaa tcttcacaaa ccacacatcc aatagagggc taatatccaa 37680
aacatacaaa gaactcatat attagactcc agaaaaccag acaacctagc caaaaactgg 37740
ggtacaaaact aagcaaataa ttcttaacta cggagacttg aatggctgag aagcaatgac 37800
ttctttttga aaatgaactg tgttatagga gcttaagcca aatcaaccct ttcttcccca 37860
agttgctttt ggtcatggtg cttatcatat cgatagaaac cctacaagag ggaccactct 37920
caccagcaac taaaatcaca ttgtctcct gtccgctctc atccacatta acgttgtgaa 37980
agaaaagggc gccatcttcc ttcattacaa cttcgaagta atttctacca gagtctgcaa 38040
ttaaaagaga atcagcttag aaatcagtag aatcattgga ggtttcacta ttattttaca 38100
tatgaaatct atgatatttt tttttctttt tcaattatit gacaaatgtc atttacaatg 38160
gtttaaaatt gtaaatgaga attactaagt ggtagagaca ctcttgcat aattaaaata 38220
tttttttgaa tttaaaaaga atgtccataa ttagacggga atgctggcac acgcctttga 38280
tcccagcact tgggaggcag aggcaggtag atttctgagt tcaaggccag cctggtctac 38340
aaagtgggtt ttaggacagc cagggttata tagagaaacc ctgtctcaaa aatgaaaaa 38400
aaaagttcat aattacctta tgtctccaca gcctatitaa aaagtgaaca caacgctaat 38460
attaaaatac cacactgaag cagggatggt gactcaaaca tcaaatccca gcaatcagga 38520
ggatctctgg ggctagcctt gtcgcagaac tagttatagg acagccaggg ctatgcagag 38580
taactctgta tcaaaaaaaa ttttaaaaac aaccacaaat gtgtctatgt atgtctgtgt 38640

```

```

gtgtgtgtgt gtgtgtgtgt gtgtagcaaa tgtatagttt tccatatatt aaacccttaa 38700
gaaatcagtc ctgtagcttt atgggactgc cttctaaatg tcatttatac ttaaataata 38760
ggcacaaaaa tgtctctaata aatacttttg tatgaatgtg tataatacac cttactgat 38820
aacataaatg tctggaagtt tagttaggat tttggaagtt gcatcaaaaa ttatcagatg 38880
aaattgttca aggatcctgg cccttttagtt gtgcggcctt gtcaaacctt gcaaaatttc 38940
tctctgtctc tctgtctttc tgtccctccc cccctctctc aattagatta tgcatcccat 39000
taattgatta catactcaca gtcagtagtg taccgccccat cttcttgttt ttctcccaca 39060
acagtgtgtg tctgacactt gccattcatc cttcagaaat aaaaatcaaa aacttgcttc 39120
tgaatttact ctttcaggtt gctcatattt ctttattgtg tggtagtatt aactgtcttt 39180
gggaagtgtt taatttgttt aaataaaccc acatctgaag actgacacca acactctggg 39240
gttatgattg acatggaaag taaatccagg cttccagggg aagacactgt cctcattttc 39300
taccacattt tcctgttcat gactagtctt aaccagaatt acccaacct gtaaaactgt 39360
agaacacatt gcattcagtg ttccttaaat caaggacaca actcagaata aatatgcccc 39420
ggagatcaat tccatttttt cacatggccc aagtgtcagt gaaaatttca cagacattca 39480
tgtgcccagt ttctcagtc tgtccatgtg catcaggatga atgtcactta ctggacatgg 39540
aatttgattt tgagtgtccc acagtctgca ttgcactcca tatgtcaca gtacgtctc 39600
aggctcccat tcacttttac tttctccacc ttgtccgcag ctatgtaaag ggtgcgccag 39660
tccccattaa cctaaatagg acagacacca ttgcaaaagt tggttagtca atctgttccc 39720
ttttattcag caacatttgt cctaattact acatgacaac aattccataa gtcaacaaat 39780
gaacttgac caagtaaaat gcagatgtct ctctgctaga gagtagatta ggagattgtg 39840
tcactactca ttcacactag aatatggaac acaggataca gttcacactt tgtcaatcaa 39900
taacaatgca aagtccaatc tgtaattttc tcttcttaac cttctttcat actagacaga 39960
agtcattgaa aacatgcaaa gagttgaaaa tacactagga ctgcattaca gataggattc 40020
agataatgta tatatgctat atataccaca tataatatgt aatgccatac catttatagt 40080
atatgatata tatgtcaca ccaactacag agtgtacata aacaccccag accctttatc 40140
cccaaagtca cacacctctg agggactgat atcaagagat tcatgatgtg cacaggatac 40200
acctaagtca agcgcaatta gcaggaactt caccatggta gagcctggat tctctccttc 40260
cgaaggagtt cagagacca gggcaggtga tggggagacc cagaaccatc tccaccttat 40320
atagtattga ttattggcct gagattggca tggattgcct gtggtaaaat tccagcatat 40380
cctggtgggtg gaaacatctg tgatgacaat tctgtttttc tgctactttt gaaataagat 40440
taacttgagt aaagccatga aattgacctt ttagacttct gtggacttgg gctagctgtc 40500
agaaaacaca aatatccatg tccctaaagt ccaagtttct ctttggaac actttaaaga 40560
aatgaactta ttgactcag gctattttta tgatgacaaa ttttccatca atcagacct 40620
ttgatcacag gttaccatat ggatattaac aattttttat acaattgaat atcaatggac 40680
atatatttct agaacattct agagtgttct agaattgtct acaacattct ggggcattct 40740
tgtaaaaacc tttgtgaaga agtgtactgt tttcctttct gggcaggaat ttgcaattta 40800
gattcatgat tttaaatatt ttataaatt gatattttca tcaagatgtg aagattttta 40860
atgatgtaaa attcccattg tttgtgggt acatttggtg atactatgtc ctggtaatca 40920
gcattgcttt tgctaacatt actttatata ttcaataata tatacacaca ctttgtttc 40980

```

tgattgctat aagtgtatTT tttgacaact gtgtctctaa atcatttatg caatgaaaag 41040
 tcagctgcta atTTTctcat gTTTgtgtct gagaaattct caacgttttc tccattgaga 41100
 actTTgacct gtggatggat ttgcaaatat tcaccgaaat gcatgactca aaactagttg 41160
 tcaatgttcc aaggctTTaa ataagaaata ttcacccatc ccatgttcag aaaggttctt 41220
 gatgtatgtt cttctTTTT agtatacccc atacaaatgt gatccttatt atatTTTTac 41280
 atatTTTTct tgattcattc cttcttctct gtgtttgatt attcaagaga taactcagtt 41340
 ccactggaac aagattgggc tgacctacaa acatatTTat tttcatccat tcatTTcttg 41400
 tgaaatctct actTTccttc agaattctaa tgtgatttgg aatacagata atgttgggaa 41460
 aatgtaatga aaatcaacca gaaaaagctg tcatTTaata cttccaaagt ggataattac 41520
 ttaagactgt atgtgcactc attaaagtcc ttctcatttc tctccagac ccagtaacaa 41580
 caacacatta atcctattta ttgagtatcc ttctggaaaa ttacctacaa ttttgcaaa 41640
 actcaggttc attcttccac atttccaaaca gTTTTattaa aatataagct ttccttctt 41700
 atttattaag tgaagtgagt ttctctccct tctacctgat tacagagaaa ggtgatacaa 41760
 cacagcctaa actggagtct tggaaagata aaaacaaatt ctgcctcatg tcaaaacata 41820
 catTTattcc taaggaaact aaagattatc tctgtctgtt tgaactTTaa tattgaagca 41880
 tgtacacaaa cacacacaca catgcacaca cacatacata cacacacata cacacatgtt 41940
 tcttatgttc ttgtgtatTT attcataaat atTTtatata tggatatggg tTTtatata 42000
 tTTctatct gtggatatat atttatgtgt aatgtaagta tagctatatt ttacattcag 42060
 atttatatat tccaatttat acatgtatga tacatatata catgtgtgat acatacatat 42120
 ttgtTTccat tttcagtaat ttaccaatta aattcctaatt ccacacattt tgtctacctc 42180
 agaaaagtga agaaagaatg gaaaatgtag gtgcttcaaa ggacagagtt aaaacataca 42240
 aaatactgac acaacggatg ctgttatTga agtcatggcc aagcttagaa ctctttgatg 42300
 tctgaccttt gagtagaact tggctaaaag tctgtctcct ttcttcttct tTTtaattg 42360
 gatatTTtat ttatttacat ttcaaagtgt atccccTTc ctggcttcac ctctggaaaa 42420
 cccctatccc atcttccctc atctcttTct gagggTgctc ctaccacccc attcccacct 42480
 caccacactg acattccctg acaactggagc attgagtcatt ttacaactca aatgctatcc 42540
 taaatgtccc ttatatcctc cccccacca gtagccttat ttataatagc cagaacctgg 42600
 aaagtgcct gatgtccaag ggccctccctg ccattgatgc caaacaagc catcctctgc 42660
 tacatatgct gctggagcca tggatccctc tatgtgtact ctgtggttgg tggTTtagtc 42720
 cctgggagct ctggggTTac tggTTatctc atattgtTgt tctcctatg gggctgtTca 42780
 tcccttcaac tccTTcaagt accttctcta actgctgtat tgtggTcccc atgctcaatc 42840
 caatggTTgg ctgcaaactg gtgcctctga atTTgtaagg ctctgtcaga gcccctcagg 42900
 agacaacct atcaggctcc tgtaagcaag cacttcttgg catcccaat agggctctggg 42960
 tttggtgtct gtatgtgatg gatccccagg tcgggcagtc tatggatggT ctttcttTca 43020
 gactctgac cacactTgt tcccataact cTTtagaca ggtTcaattc tgggtTaaaa 43080
 atttgatat gagtgggtga ctacgtcccc caacctgggg tcttTcttaa cttctggata 43140
 tggTctctac atgtTcatcc tccccTTTT tgggcatttc agctaattgc atccaagtTg 43200
 ggacctggga gcctctTaat ttactggcat ctgggacttc ctgatggcta tccctgtTtc 43260
 ccatcattca ttgtacaca cctctgtTca aattcctgac cctctgTaaa atcgtccctg 43320

```

tctcctagca cacttggtct tacacccag tccctctcct tctcctctct tccttccaag 43380
tccctcctat cctctacctt ccaagaatat tttgttctcc cttctaagat ggtctgaagc 43440
atccatactt tagtcttctt cttgagcttc atatggtctg tgaattgtat cttgggtatt 43500
ccgagatttt gggttaatat ccacttacca ttgagtgcac actatatgtt ttcttttgtg 43560
actgggttac ctcaataagg atgatacttt tttgttccat tcatttgcct aagaatttca 43620
tgaagtcttt gtttttaata gctgagtagt tctccattgt gtaaattggac catattttct 43680
ctatttgtct gtagaaggac atcagggcac tttccagggt ctgcctatta taaataaggc 43740
tacttggtgg ggggaggata taagggactt ttaggatagc atttgagttg taaatgaaga 43800
aaatatctaa taaaaattat tataaataaa taaataaatc tattataaat atagtggagt 43860
atgtgtcctt gttatatgtt ggagcatctt ttgggtgtat gttcaggagt ggtatagcta 43920
gatcctcatg tccaattttg tgaagaacca ccagaccagt tataccacca gattagttat 43980
acctccttat aattccacca acaacagatg agtgttctc tttctccaca tctttgccag 44040
catctgtgc cacctgagtt cttgatetta gtcattctga ctggtctgta gtggaatctc 44100
agggttgttt tgatttgcac tttcctgata actaaagatg gtgaacattt gtttaggtgc 44160
ttcttgtcca ttcaatatc cttagttgag aattctctct tcatgtctgt actccattta 44220
aaatagggtt atttggctct ctggagtcta actttagaat tatttgtata tttcggatat 44280
tagcactcta tcgaatgtag gattggtaaa gaacttttcc cagtctgttg gtttctattt 44340
tgtccattg acagtctcct ttcccttaca aaagctttgt aatttttagga ggtctcattt 44400
attgattgtt gtttttagat cataagccat tgctgttctg ctcaggaaat tttccctgt 44460
gcacatgtgt ttgaggctct taccacttt ctcttctatt agttgcatta tatatggttc 44520
tatgtggagg tccttggctc acttggagtt gatctttgta caaggatata agaattgatg 44580
gatttgcatt ctctacata ctgactgcca gttgaaccag caccatttgt tgaaaatgct 44640
gtcttttttc cactggatgg ttttagctca ttgtcaaaga ccaggggaat ataggtgtgt 44700
tggttcactt ctgggtcttc aattctattc tattgatcta cctgccttag tctgtaccaa 44760
taacatgcag tttttatctc tattgctttg tagtacaact tgaggtcagg gatgatgatt 44820
tccactgaag ttcttttatt gttgagaata ttttttgcta tcctgggttt ttgcttattc 44880
caaataaatt tgaaaattgc tctttttaag tctatgaaga agtgtctcct tttcagtagc 44940
ctgctgacat tccctactca agaaacaaca aatgtttatt gttttttcta ttctttgatt 45000
ttgtcccca ttatatttta cacaatgttt gggtttattt gcttccctct ttgttttctt 45060
tcctttctat tgatttaata atctatggat tcttctgtgc attcagtttc gaggaanaac 45120
agtgaggaaa tgaggcacta gaaattctga ggctttcata gtagtgaggg atggatctgc 45180
taattgtccc atttattggt ggaagatttc tgtcattctc agaatcaggg tttctgtgtt 45240
agaaatttca tggccttggg agaggtgtgg tgactaatgt aaaaactcaa ataaaatttc 45300
agttaaaacg ttaaaaagaa aagaaactat acaaccttgc ctttttcaga tcatagaggg 45360
aaaatgttca actttttctc atttaatatg ttttaagggtg aaatagcata tgtaattgt 45420
attaattata catcattata gatttcattg tgataaataa taatcgggtt tatttcaaag 45480
tgcagcccta ttactgaca cttaaacgat ttttaatat ttagatttta atgagctaac 45540
aaattagcag tattcttgat caattttcaa acacttaatt ttgattaaca ctctcatatc 45600
ttcttgtgtg cctccaact ccactccca acccagctaa accattcact gtccaacact 45660

```

```

ggcatttctt tattacatca tgtttacata gtactgatac tcctttatgc tctattttat 45720
tttaagactt ttgaagatat tttattttag ttttgcaaac atatccacac actttcttcc 45780
tcctatataat gcacatatat gttgcaagct aggttttgtc tactggttgg taattttcat 45840
gattagctga tttcttaaaa ttaataatat gaactttatg tatcagttga gataattacc 45900
atgggtattg cccatagtcc tactgctttt gcacctgggt ttgtcatcaa gtggtgtgga 45960
gctgacctca accaaatcag tttagtagaa tttcttcate tttggaatct taaaataagt 46020
taagaaaaag tatgcttgct tctttttcaa atgattgcta gggttcggta tcaaaataac 46080
ttggtcttaa atctgctttt ggaggaaaat attttattac tgactcaata aatagttaac 46140
tgaaaaatag ttaatgttgt cctgtgtaat tttatcttaa ggtgtctact gctaggatga 46200
aacaccacga ccaaatgcaa cttggggagc aaagggttta tttggcttaa aaatccacat 46260
catagcccat caattaagga agtcaggaca ggaactcaaa cagggcagga atccagaggc 46320
aggcactatt gcaaaggcca tggaggggtg ctgcttactg agtagctcag cctgttttct 46380
tatacaactc aggaccacca gcatgcggtg gctccatgaa caacaggctt tgctctcctt 46440
catttatatc taatctttaa aatgtcctat aagcttgtct acagcctaata cttatggagg 46500
cattttctca attgagatcc tttctctcag atgactttag tttgcgtcaa gtggcataaa 46560
actcaccagc acacttcatt taattcagtc ttagtgaaat gcatgttagt agcaataaat 46620
ccattttctg cagactctcg gacctgtgtc actgaagttt tcttaataaa acaaatttgt 46680
gtcagtttct gtgttgtaa tgtatgttta tctgatttcc tttcttgatt ttattaattt 46740
atttatcttt cttctctca ggcactttct cttctctccc ttctctttac ctcatcaaac 46800
aatttcttgc tttgatcttt aaatgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtc 46860
tttgactgtg gtttttgtaa tgctgtact gaaaagaggc gtggagctca aacacgtggt 46920
taaaaataac gtggatctca atgtcagtg caggaaaaaa aaacccatat gattccaaaa 46980
accttcagtc ctcatatgtt tcatgcaaca aatttggaaa aagggtgatt tagtgacaga 47040
attcatacca actcttcaag tgagtaactg tccaaaatta gatcttgtca agtgtcaaat 47100
ttaaatattg agtcatcttt gggaaatatt gagaagtgga gtaataaagg ttttaagaaa 47160
ataagagtga acctatctgc atttcaatat gatagctact cacttctggc agagtgagaa 47220
taaattttta agggtatggc ctttagtagg tcacacacct gtaagtatgt actgtacaca 47280
aatacaactc caagcataat ttaaaatttt ttttaaaaaa aatgagaaag tggaggaata 47340
aaaaaacagc tggaaggaat tagcgggaga aatggggatc aatattatca aaattcattt 47400
tgtatatgta tgaaattttc aaacacttaa taagattatt atatgcatta aaataacttt 47460
aagcatgttc agtgtggata agtcaatatg taaatgaggg actgaaaaag taacagaaaa 47520
caaaaattct gcatagaaat acttaatatc tggaaagaac acagatgtcc ctcaacagag 47580
gaatggatac agaaaatgta gtacatttac acaatggagt agtactcagc tattaaaaac 47640
aatgaattta tgaaattctt aggcaaatag atgtatctga aggatatcat cctgagttag 47700
gtaacccaat cacaaaagaa gtcacttgat atgcactcac tgataagtgg atattagccc 47760
agaaacctag aatacccaag atgcaacttc caaaacacaa gaaaatctag aaggaagacc 47820
aactcatgga tacttcattc ctccctagaa tagggaataa aatatccatg aaaggacttg 47880
cagagacaaa gtttgaagct gagacaaaag gatggacat ccagagactg cccacccgg 47940
ggattaatcc cataatcagc caccaaagtc agacactatt gcatatgcca gcaagatttt 48000

```

gctgaaagga ccctgatata gctgtctcct gtgaggattt gccagtgcct ggcaaataca 48060
 gaagtggatg ttcacagtca tttatagcac ggaacacagg gctcccaatg gaggagctac 48120
 agaaagtacc caaggagcta aagggatctg caaccctata ggtggaacaa cattatgaac 48180
 taaccagtac cccggagctc ttgtgtctag ctgcatatgt agcagaagat ggtctaattg 48240
 gccatcactg ggaagagagg ccccttggtc tagcaaactt tatatgcccc agtacagggg 48300
 aaagccaggg ccaagaagtg ggagtgagtg ggtagaggag cagggcgggg ggagggtata 48360
 ggggactttt gggagagcat ttgaaatgta aatgaagaaa atatctaatt aaaatttttt 48420
 taaaagaaaag gcttcatata gactctgctc ttctatttac taaatactca aatagcccac 48480
 tttacataag ctttatttta aacaaaaacc agtcatcaaa cacaagatca aacacactct 48540
 atccttgtct gtggaaaatg aagattgtca cctgagtttg acatcggaca ttcttcacac 48600
 atttgctagg gcatgtgcat gccttcgctc acaggaacat atacacatat gcgcgcacac 48660
 aggaattttt ttaaaacaca cttttttctg gagaataatt tattegtttg tttgttattt 48720
 ggttggtttt ctggaggcaa gatgtcacta agtagctctg gctgtcctgg cactcactat 48780
 gtagaacaga ctagacttga actcacacag atcaacctcc ctctgcttct acagtgccag 48840
 gattaaaatg tatgcatccc catgcctgat taagaccatt gtattttcaa aacaaacttc 48900
 acattcctgt gggaaatgct cacaagtata gctataaatg cagataaata gagtcattat 48960
 ttttctgtat caacattggc tctggaacaa atgtttaaag agctgatcca aaaattagat 49020
 ctcaggagga ggagtattgt ttttttctaa aatgttcaga tttctgcttt acttttcaac 49080
 tgtatgctga agtatctttt tttcacagca ttaaaatacc tttatttgta attagatttt 49140
 aaaatactgt caaaaattat gccaggaaac aggaaggaca cagcttacc tagagggaaa 49200
 aacaataaat ccaagacaga tgatttcctc tacaagggtt tttcttgga aacagatata 49260
 taagcagaac cagggcactc acagtagata gcaactgcac agacaggttg ggagtttaca 49320
 aaacaaaaac ttgcatgtt gaggaagggt aatgacaca gaggagcata ttgactggag 49380
 aatacccatt gtctgaattt ttttctctc ttttctgttg tgacatttac tacttagtaa 49440
 cacagtaagc taaacaacca gtgccatggt aggcttgagt cagctctttc aggttcatgt 49500
 ccatcaaaga tctacatctc tcccctggta gcttaagaga agccatggtg gttggtattt 49560
 cctactgcca gacagctggt tgtaagtga atattttgaa gtcctaaaaa ttgtgttgaa 49620
 ttttatagca ttatccatca ctttgcatTA tttacttttt tcaaaaaaat tgacaatctc 49680
 atgactgcac ataatatatt ttgatcaatt ccaactacac ctctttaata ggacaatagg 49740
 aggtgctggt tgggttccta tagaggactg atctcacagg aggaagtatg ccacttttag 49800
 gaattggatt tgaggctctc atgcaatgct tgtctacttt tctctgttta ccacttttgg 49860
 atcaagatgt aatctcttag cttctggatc gagacagtgc catgataaag atggaaactc 49920
 atacctccga aacagtgacc ttgaagaaaa acttccttct gtatgttgca ttttctactc 49980
 taacaaattt actttttag tgctccaatg agtaactgac atatcaatta aaagtggggt 50040
 taggggagac atactgactt gaataatttt tgcactatag ttaggtttt gacaatttct 50100
 acagtgtttt atatttcaga actgtgttcc tgagatgtgc gatatctcag ggggtaatga 50160
 tgactgagtt ttgtgacct cttagtagga gaagaaagaa ccagtatcca ccagctatct 50220
 tctgacctcc acacacatgc caaggatgg gcataccag tcccatgtac aaaataaatg 50280
 ataaagtttt aacatgtatt atgcacaaat ccaaaattaa taaggacact tactacgtgt 50340

ataactgaaa cccaaagtaa ttgtaaaatc aagtatttca tatttctctt tcatgtgcag 50400
 atggataaca gaagtcaaaa ctgtctttct ggctgtttta atataacata taattctatg 50460
 caaaaaatac tgatactatc ttttaaaaag aaaaaaactg tatatgcata cattatttca 50520
 tattaaacac tattaagaag aaatgagtgc aaacattgta tttcaaattt cagattaatg 50580
 gattctgaca tgtggaaggg ttacatttcc caaatgtctc atcagcacag gttcctgaaa 50640
 actggggaaa cccaggacta atgagatgga ttttcacata gaggtggata ctgccaagcc 50700
 tgggtacctg agcccacaca cccatgaact caaaataatt tttaaaaaga agaaatttaa 50760
 aatttaacta tataatattat gattatccaa taagctttct agatgtttct ttggttatat 50820
 gtcataattg tcgtgattga caagctgtta aatttgagtg atgtttgtaa agaaataaca 50880
 ataaattata tctatagaag caagacttca tctttaggat caagactgta tgctccatgt 50940
 tatcacagct gttaaccag acaaaggcta gaacctccag ttccacaaac aaatgtgaat 51000
 tctactgtgt ccagtttact gccatgtttt tggctcatgt aacaatgtgg tttgtgcaa 51060
 cattagagca gaggtcacaa gtgcattttg cctccccagt attgctgatg aatccatggt 51120
 tcaggttcaa ggggtgtgaa aacttgattg aaaatggtca gacttgatat tcttcagta 51180
 tatctgattg gaggaactga taatagatat cagatttaaa cctctaccat tccagttaag 51240
 ataatatgat agcatcttgt tcttcatctt cctttttctt aatagggaca taaaaccaat 51300
 gaataaaaat atacctgaaa catgggatag gcactgggca ttggaaatga caataaaagt 51360
 aaattttcca tccctagtaa agttctccag gaacctatth gtatactaaa tgacacaatg 51420
 tcaatgtcag tgcacaactg ccaactggga tgcagaacac tgctcacgcc aaccatcctg 51480
 aaagccaact ataaaaagca gagagatact ctgcaccttt tcagtgaggt ccagataccc 51540
 acagagcaga gacagtcgct cacacatgga taaagtttta aacagagagg aatctttgca 51600
 gctaattggac cttctaggtc ttgaaaggag tgcctggggg aatattcctc tgatgagaaa 51660
 ggcataattta aaaaaatgca aggagtthca tcctgataaa ggaggagatg aagaaaaaat 51720
 gaagaaaatg aatactctgt acaagaaaat ggaagatgga gtaaaatatg ctcataacc 51780
 tgactttgga ggcttctggg atgcaactga ggtatttgct tcttccttaa atcctggtgt 51840
 tgatgcaatg tactgcaaac aatggcctga gtgtgcaaag aaaatgtctg ctaactgcat 51900
 atgcttgctg tgcttactga ggatgaagca tgaaaataga aaattataca ggaaagatcc 51960
 acttggtggtg gttgattgct actgcttcca ttgctttaga atgtggtttg gacttgatct 52020
 ttgtgaagga accttacttc tgtggtgtga cataattgga caaactacct acagagattt 52080
 aaagctctaa ggtaaatata aaatttttaa gtgtataatg tgttaaacta ctgattctaa 52140
 ttgtttgtgt atttttagatt ccaacctatg gaactgatga atgggagcag tgggtggaatg 52200
 cctttaatga ggaaaacctg ttttctcag aagaaatgcc atctagtgat gatgaggcta 52260
 ctgctgactc tcaacattct actcctccaa aaaagaagag aaaggtaga gacccaagg 52320
 actttccttc agaattgcta agttttttga gtcatgctgt gtttagtaat agaactcttg 52380
 cttgctttgc tatttacacc acaaaggaaa aagctgcact gctatacaag aaaattatgg 52440
 aaaaatatte tgtaaccttt ataagtaggc ataacagtta taatcataac atactgtttt 52500
 ttcttactcc acacaggcat agagtgtctg ctattaataa ctatgctcaa aaattgtgta 52560
 cctttagctt tttaatgtgt aaaggggtta ataaggaata tttgatgtat agtgccttga 52620
 ctagagatcc attttctgtt attgaggaaa gtttgccagg tgggttaaag gagcatgatt 52680

ttaatccaga agaagcagag gaaactaaac aagtgtcctg gaagcttgta acagagtatg 52740
 caatggaaac aaaatgtgat gatgtgttgt tattgcttgg gatgtacttg gaatttcagt 52800
 acagttttga aatgtgttta aaatgtatta aaaaagaaca gccagccac tataagtacc 52860
 atgaaaagca ttatgcaaat gctgctatat ttgctgacag caaaaaccaa aaaaccatat 52920
 gccaacaggc tgttgatact gttttagcta aaaagcgggt tgatagccta caattaacta 52980
 gagaacaaat gttaacaaac agatttaatg atcttttggg taggatggat ataatgtttg 53040
 gttctacagg ctctgctgac atagaagaat ggatggctgg agttgcttgg ctacactgtt 53100
 tgttgcccaa aatggattca gtggtgtatg actttttaa atgcatgggtg tacaacattc 53160
 ctaaaaaaag atactggctg tttaaaggac caattgatag tggtaaaact acattagcag 53220
 ctgcttttgc tgaattatgt ggggggaaaag ctttaaagt taatttgccc ttggacaggc 53280
 tgaactttga gctaggagta gctattgacc agtttttagt agtttttgag gatgtaaagg 53340
 gcaactggagg ggagtcacaga gatttgcctt caggtcaggg aattaataac ctggacaatt 53400
 taagggatta tttggatggc agtggttaagg taaacttaga aaagaaacac ctaataaaaa 53460
 gaactcaaat atttccccct ggaatagtca ccatgaatga gtacagtgtg cctaaaacac 53520
 tgcaggccag atttgtaaaa caaatagatt ttaggcecaa agattattta aagcattgcc 53580
 tggaacgcag tgagtttttg ttagaaaaga gaataattca aagtggcatt gctttgcttc 53640
 ttatgttaat ttggtacaga cctgtggctg agtttgcctc aagtattcag agcagaattg 53700
 tggagtggaa agagagattg gacaaagagt ttagtttgtc agtgtatcaa aaaatgaagt 53760
 ttaatgtggc tatgggaatt ggagttttag attggctaag aaacagtgat gatgatgatg 53820
 aagacagcca ggaaaatgct gataaaaatg aagatgggtg ggagaagaac atggaagact 53880
 cagggcattga aacaggcatt gattcacagt cccaaggctc atttcaggcc cctcagtcct 53940
 cacagtctgt tcatgatcat aatcagccat accacatttg tagaggtttt acttgcttta 54000
 aaaaacctcc cacacctccc cctgaacctg aaacagaggg cagaggaagt ctgctaakat 54060
 gcggtgacgt cgaggagaat cctggcccca tggaagatgc caaaaacatt aagaagggcc 54120
 cagcgccatt ctaccactc gaagacggga ccgcccggga gcagctgcac aaagccatga 54180
 agcgctacgc cctgggtgccc ggcaccatcg cttttaccga cgcacatata gaggtggaca 54240
 ttacctacgc cgagtacttc gagatgagcg ttcggctggc agaagctatg aagcgctatg 54300
 ggctgaatac aaaccatcgg atcgtggtgt gcagcgagaa tagcttgacg ttcttcatgc 54360
 ccgtgttggg tgccctgttc atcgtgtgtg ctgtggcccc agctaacgac atctacaacg 54420
 agcgcgagct gctgaacagc atgggcatca gccagccac cgtcgtatc gtgagcaaga 54480
 aagggtctgca aaagatcctc aacgtgcaaa agaagctacc gatcatacaa aagatcatca 54540
 tcatggatag caagaccgac taccagggt tccaaagcat gtacaccttc gtgacttccc 54600
 atttgccacc cggttcaac gactacgact tcgtgcccga gagcttcgac cgggacaaaa 54660
 ccatcgccct gatcatgaac agtagtgga gtaccggatt gccaagggc gtagccctac 54720
 cgcaccgcac cgcttggtc cgattcagtc atgcccgcga ccccatcttc ggcaaccaga 54780
 tcatccccga caccgctatc ctacagctgg tgccatttca ccacggttc ggcatgttca 54840
 ccacgtggg ctacttgatc tgcggtttc gggctgtgt catgtaccgc ttcgaggagg 54900
 agctattctt gcgcagctg caagactata agattcaatc tgccctgctg gtgcccacac 54960
 tatttagctt cttcgctaag agcactctca tcgacaagta cgacctaagc aacttgcacg 55020

```

agatcgccag cggcggggcg ccgctcagca aggaggtagg tgaggccgtg gccaaacgct 55080
tccacctacc aggcattccg cagggctacg gcctgacaga aacaaccagc gccattctga 55140
tcacccccga aggggacgac aagcctggcg cagtaggcaa ggtggtgccc ttcttcgagg 55200
ctaaggtggt ggacttggac accggtgaaga cactgggtgt gaaccagcgc ggcgagctgt 55260
gcgtccgtgg ccccatgata atgagcggct acgttaacaa ccccgaggct acaaacgctc 55320
tcatcgacaa ggacggctgg ctgcacagcg gcgacatcgc ctactgggac gaggacgagc 55380
acttcttcat cgtggaccgg ctgaagagcc tgatcaaata caagggtac caggtagccc 55440
cagccgaact ggagagcatt ctgctgcaac accccaacat cttcgacgcc ggggtcgccg 55500
gcctgcccga cgacgatgcc ggcgagctgc ccgccgcagt cgtcgtgctg gaacacggta 55560
aaaccatgac cgagaaggag atcgtggact atgtggccag ccaggttaca accgccaaga 55620
agctgcgcgg tgggtgtgtg ttcgtggacg aggtgcctaa aggactgacc ggcaagttgg 55680
acgcccgcaa gatccgcgag attctcatta aggccaagaa gggcggcaag atcgccgtgt 55740
aataattcta gactcggggc ggccggccgc ttcgagcaga catgataaga tacattgatg 55800
agtttggaca aaccacaact agaatgcagt gaaaaaatg ctttatttgt gaaatttgtg 55860
atgctattgc tttatttcta accattataa gctgcaataa acaagttaac aacaacaatt 55920
gcattcattt tatgtttcag gttcaggggg aggtgtggga ggttttttaa agcaagtaaa 55980
acctctacaa atgtggtact cgagataact tcgtataatg tatgctatac gaagtatat 56040
gcatggcctc cgcgccgggt tttggcgctt cccgcgggcg ccccccctct caccgagcgc 56100
gctgccacgt cagacgaagg gcgcagcgag cgtcctgata cttccgcccc gacgctcagg 56160
acagcggccc gctgctcata agactcggcc ttagaacccc agtatcagca gaaggacatt 56220
ttaggacggg acttgggtga ctctagggca ctggttttct ttccagagag cggaacaggc 56280
gaggaaaagt agtcccttct cggcgattct gcggagggat ctccgtgggg cgggtgaacgc 56340
cgatgattat ataaggacgc gccgggtgtg gcacagctag ttccgtcgca gccgggattt 56400
gggtcgcggg tcttgtttgt ggatcgctgt gatcgctact tggtagtag cgggctgctg 56460
ggctggccgg ggctttcgtg gccgccgggc cgctcggtgg gacggaagcg tgtggagaga 56520
ccgccaaggg ctgtagtctg ggtccgcgag caaggttgcc ctgaactggg ggttgggggg 56580
agcgcagcaa aatggcggct gttcccagat cttgaatgga agacgcttgt gaggcgggct 56640
gtgaggtcgt tgaacaaggg tggggggcat ggtgggcggc aagaacccaa ggtcttgagg 56700
ccttcgctaa tgcgggaaag ctcttattcg ggtgagatgg gctggggcac catctgggga 56760
ccctgacgtg aagtttgtca ctgactggag aactcggttt gtcgtctgtt gcgggggcgg 56820
cagttatggc ggtgccgttg ggcagtgcac ccgtaccttt gggagcgcgc gccctcgtcg 56880
tgtcgtgacg tcacccgttc tgttggttta taatgcaggg tggggccacc tgccggtagg 56940
tgtgcggtag gcttttctcc gtcgcaggac gcagggttcg ggcctagggt aggtctctct 57000
gaatcgacag gcgccggacc tctggtgagg ggagggataa gtgaggcgtc agtttctttg 57060
gtcggtttta tgtacctatc ttcttaagta gctgaagctc cggttttgaa ctatgcgctc 57120
ggggttggcg agtgtgtttt gtgaagtttt ttaggcacct ttgaaatgt aatcatttgg 57180
gtcaatatgt aattttcagt gttagactag taaattgtcc gctaaattct ggccgttttt 57240
ggcttttttg ttagacgtgt tgacaattaa tcatcggcatt agtatatcgg catagtataa 57300
tacgacaagg tgaggaaacta aaccatggga tcggccattg aacaagatgg attgcacgca 57360

```

ggttctccgg ccgcttgggt ggagaggcta ttccggctatg actgggcaca acagacaatc 57420
ggctgctctg atgccgccgt gttccggctg tcagcgcagg ggcgcccgggt tctttttgtc 57480
aagaccgacc tgtccgggtgc cctgaatgaa ctgcaggacg aggcagcgcg gctatcgtgg 57540
ctggccacga cgggcgttcc ttgcgcagct gtgctcgacg ttgtcactga agcgggaagg 57600
gactggctgc tattgggcga agtgccgggg caggatctcc tgtcatctca ccttgctcct 57660
gccgagaaag tatccatcat ggctgatgca atgcggcggc tgcatacgct tgatccggct 57720
acctgcccac tcgaccacca agcgaaacat cgcacgcagc gagcacgtac tcggatggaa 57780
gccggtcttg tcgatcagga tgatctggac gaagagcadc aggggctcgc gccagccgaa 57840
ctgttcgcca ggctcaaggc gcgcacgccc gacggcgatg atctcgtcgt gacctatggc 57900
gatgcctgct tgccgaatat catggtggaa aatggccgct tttctggatt catcgactgt 57960
ggccggctgg gtgtggcgga ccgctatcag gacatagcgt tggctaccgc tgatattgct 58020
gaagagcttg gcggcgaaat ggctgaccgc ttctcgtgc tttacggatc cgccgctccc 58080
gattcgcagc gcacgcctt ctatgcctt cttgacgagt tcttctgagg ggatccgctg 58140
taagtctgca gaaattgatg atctattaaa caataaagat gtccactaaa atggaagttt 58200
ttcctgtcat actttgttaa gaagggtgag aacagagtag ctacattttg aatggaagga 58260
ttggagctac ggggggtgggg gtgggggtggg attagataaa tgccctgctct ttactgaagg 58320
ctctttacta ttgctttatg ataagtgttc atagttagat atcataattt aaacaagcaa 58380
aaccaaatta agggccagct cattcctccc actcatgac tatagatcta tagatctctc 58440
gtgggatcat tgtttttctc ttgattccca ctttgtggtt ctaagtactg tggtttccaa 58500
atgtgtcagt ttcatagcct gaagaacgag atcagcagcc tctgttccac atacacttca 58560
ttctcagtat tgttttgcca agttctaatt ccatcagacc tcgacctgca gcccttagat 58620
aacttcgtat aatgtatgct atacgaagtt atgctagcta gtgactcaac aagatcagga 58680
ttaggtgagt caaagcacat taattttata tcttgaagtt ttaattttta ttttatttta 58740
atattttaagt tattaatatt taatatttaa agtaaataat attttatttg ttctttatcc 58800
ttttcatata tttatataat gtatatttat ctttcatact tccacacacc tcatccaagc 58860
aacacatctc cctctatact tcatggcttt taaattttat tattatttat tattattatt 58920
acctcaatga atccaattgg tgctatttct gaatagggtg tgtcaattcc tggaggcatg 58980
agtaatgtaa tataccaggg ctattatgta atataaaaa atggactgca gggagctggg 59040
ggcacatgca tttaacctag cgtcaagag gcagaagcaa gcataatgtc gcgtttttaga 59100
taaccctagt ctacagagt agttccagga cagcaagggc tactcagaga aaccctgtct 59160
cataaaacca aaaagtatat tttttaaagg cagaagagga aaggaggagg ggaggagggg 59220
aaagggcag acagacagac aggcaggcag gcaggcaaaa agaaggaaaa agaaaaatat 59280
ggaccctccc tctcccagaa actatcaact ggcaatagct ctttgggtggg ggggggggggt 59340
cctgaatccc tctctgctca attctagaat gttaattagc ttgatctgac cagggtcttg 59400
tgcagaacac cacagttgct gtgagttcat gattgtaaca gatctgtcat gttcagaaaa 59460
cagaatttta tggtctact ccccatccag atgataattg atggctaagc atccacagtc 59520
acttgctctc atcctttgac cagctacaaa tttctgcaca aaccactccc cactgtaaaa 59580
agttgagcag aagtcaaaca tggaggcaca cacccttaat cccaacactt gggaggcacg 59640
ggtagatgaa tctctgtgag tatcaagcca gcctgatcta catactgagc tccagaagat 59700

ccaggtacat agtctctatc taaacaaaca aacacaaagt taaaaagttg atttgaccaa 59760
 aattgagaga agcataaate tatgagtatt ttttaagaccg tggcttggaac acatgacagt 59820
 tcatcaccac tgggtctcctt cataggctcc atgagctcca ttgtcacagg cttttgactc 59880
 gaattacaat agaaacccac ccttaccctt gttcttccat agatatgaag ttccttccat 59940
 ggagctggca tgaaatttaa tcagagagtg cttggctccc caatacagcc tttattgcac 60000
 cagtggacgc aaggatgatt ttatagtgtg ttgggggaagc atggtgacat cactgacatc 60060
 ttatcccaca tacacagcct attaagtaca tctaagcact gtgaacgagt ttcctagtcc 60120
 atttgacatc gatttcttga tgccctacag ccacagcatt tgggtgtcttc agcaatagt 60180
 ccctaccatt tagatatggt gtatagtcaa gagatatggc aatagccaag ttattttggt 60240
 tattccaagg cttccttcca ttaataaata tcatggtggt acccccatga ctaaaaatta 60300
 gattttcact gaataaaaca tgtcttctgg gaacagcatt ataccattgc agggatcctc 60360
 tgctgaaact tttttaatac tatattttta cttagcttac aaactagtgg atttctgtaa 60420
 gacttcattt accttcagtt tcagttgacc ctccctacc ctgttcttcc ctatgcccac 60480
 acacatccac acctactcct ctageccaca gtctcactt tctaattctc cctgtcacca 60540
 gtgcccatt atatcgctg tattattata ttttaatcac acaaccatag gtttccatat 60600
 gaggttttaa taaccttca ttctggttaa accttccacc acacctgat ttccccattc 60660
 cacaaccaac tccatgatta agccttctg cccaagtat tcttctttat acttcatttt 60720
 aatggcatta catttgatgg acccacttcc ttgatggacc caattcaaac cagtttctaa 60780
 ttacctggat tccttacata ctccatatta tgcatacaaa ataaaagatt caagtctaata 60840
 gtccacatgt gagatagaat gtgcagttt tctttctgag cctgagtggc ctcattaagt 60900
 ataataattt ccagttcctt ctatttactt ggaaatttca tattttcatt gttctctatg 60960
 gctgagtaat attccatctt atacattaca ttttccttat ccattcatta gttgatgaac 61020
 agttgggtca acttcgttct ttagctatta tgaacttaac ctgagtgagc atggacattc 61080
 aaaggtctct gtaacagaat ataaaccctt ttgtgtacat atctagaaat ggaggaacta 61140
 gagaaagcac ccaaggaact aaagggaact gcaaccctat aggtggaaca acaatatgaa 61200
 ctaagcagta ccccgagct cttgtctcta gctgcataac tatcaaaaga tggcctagtc 61260
 ggccatcact gcaaagagag gccattgga cttgcaaact ttatatgccc cagtacaggg 61320
 gaatgccagg gccaaaaagg ggggatgggt gggtagggga gtgggggggg gttggggact 61380
 ttttgtatag cattggaaat gtaaatgagc taaataccta ataaaaaatg gaaaaaaaaa 61440
 gaaatggtgt aactgagtc catgggaagt ctttttctaa tctttggatt tgtttatttg 61500
 atgttcatag tttttgggtt ttggttggtt ttgttctaag ttctttgtat attgtagaca 61560
 ctaatcctcc atcacatgt tagttggcaa agatctccat tccccgagat acctgtgcat 61620
 ttaattgaca gcttcctttg ccgtagtttt taattccatg atatctgaca agtgtttgtc 61680
 ttactttctt gctacaagaa tcctattcaa agaatecata cctgtgtcta tggttaacac 61740
 aactccatg ctttcttctc tatcagcttc aggttaccat gtcttatgac acggtctttg 61800
 aatcatttgg agttgaggtt tttttcaagg tgacaggga gagccagggt tcatttctct 61860
 gtatcctgat gtccactttt tcctattcgg tctatttatg gaattatata tttttatgtt 61920
 aggtcatttt tcagtgagg cattacaat atccagaagg ggactatttc ttactagtgt 61980
 tgagatggta ttctcctata tggggctggt actgaaggca gcaagttcta cccctagtct 62040

```

tctgtgaga ttcaactact atctgggacc tcgagtgaga ctctgtctgt aggatacatg 62100
gggcttggtg aactccaatg tgaacacaaa aatatataat tttagtttag attcatagaa 62160
actacatcct caaataaaca cataagttct aaaaagtacc aatttaggtc ttgatataag 62220
atcatttgct atataaaaat ttcccatata agggaaatct ccatacaaag ttcatgtata 62280
tttccaaata tacaaaattc tgtaaaatgt ttttgcatag tacatcttgt cattgtttgc 62340
ctctttaatg gcttgatatt gtttcatttt ctactctcat caaatatcat gtattactat 62400
cctaaatata tgaaataaatt ctgttccagc attacagatg acatcaggaa tttccagta 62460
tatttttcct ggaacctgaa acatcaatat gaagatgaag caatcttgct tctcagatca 62520
tattttccta ttatttgcaa attacaattc ctgtctctgt actttctctt tctactcattg 62580
tttcccatgt tctaatecgt attagtgcac ctttgaatgt ttaaataaat ttattttact 62640
tgcatacgtg ttgttaaaaag gggaagctaa agtacaatgc acataaatac ctatttgact 62700
ttttttaaag gagaggaggg ttggaggagg ggcatgtgat tgctcacgcc tgtaatttca 62760
gcaccgggga aagaggtaga gacagttgaa tcctctgatg tcaccagtag ccagcctaga 62820
ctacatgaaa tattgcaggc cagtgcagaa tcacccaga aaacaaggca gggacatgac 62880
aggcagctca gtggtcaaga gcactagctg ctcttccaca ggacctgggt tatattccta 62940
acactcacat gacaactcac aactttctgt aattccagtt cccagggtt tgacatatat 63000
atggacaacc atgcaagcaa aacaccaatg cacataaaat tttaaaaaac taattcaatt 63060
aaggcagatg tgaatgaagg atgccacctg acataatcct gtggcactca acatttacat 63120
gcacacactt gtgtccatga acacaagtgc aaaaatacag agagagagag agagagagag 63180
agagagagag agagagagag agagagaaca tacaccaaag agtctcatca ttcctacatg 63240
ttacaaactc caatattgta attttgactt tagaaaaggaa ggtaaaatat tatattgggt 63300
gtttaaagta aacatttaaa aactttgtag cagaaaatgg cctagttggc catcattgggt 63360
aggagaggcc ctttgtcttg caaagattat atgccccagt acaggggaat gccagggcc 63420
ataagcagaa gtgggtgggt tgggaagcag ggtggggaag tgtataggga actttcagga 63480
tagcatttga aatgtaaatg aacaaaatat ctaataaaaa aaaagctttg tgtgctagta 63540
gtttgtcaac ctgacacagg ccatagtcac ttgggaaagg agacactcaa gaaaatacct 63600
ccaccagggt caactgtgga gcatttcttg actggtagtc aatgtgaggg caggctctac 63660
tactgtgga aaacactgcc aagcaaacca tgaggaaacca gacagtaagc agaactcttc 63720
catagcctct gtatcagttt ctgctccaa gtctctgctt tgacttcccc aagggtataa 63780
gctacaagtg gtcagatgaa ataaacctt ttctcctaa gatgcttttg gccatggagt 63840
tcacaaaagc aatagaaaacc ctaagacaca gagtaatgtt gaagagctta gatcacaat 63900
catatcttaa agttgaaaga aaccaccca cacacttgta tgcataata caaattcaca 63960
tgtggacaaa catacatata tactcaaacc atacatgtat gtatatttaa aaatttgaaa 64020
tgtcacagga agaattatct ttagtctttt gaactacttt gatttatcta ctttaaccac 64080
ttgcctgcta ttgttgggtt caatggctac gctttcataa tgccttctaa atattaattt 64140
gcactctgg accaggatca tgctcaactt ttgtcagaga agcttgtttt tgtggtgaga 64200
tgaatgttat gacactgaag tttttgcac acgttctgac atatgtctat ccacctacca 64260
tttgatcacc cactacgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 64320
gtgtgtgtga ttgaaatgag aacagcccc gtaggtcat agatttgatt gcttgatcac 64380

```

```

taaggagtag cactatttga aaggataagg agatgtggac ttggaggaag tgagtcaactg 64440
aggatgagct ttgtggtttc aagagcccaa gccagaccct gcttcctcat cctacttgct 64500
atggactcag atgtaaaaat ctccactcct tcagcaccat gtctgcctgt gtgctacat 64560
gccaaaaaat ggaataaatc tctgacactg tgtgaccctc cctgccccga gaattgttga 64620
cctatatattg tccatgagga gcagagacaa tggggaaaga gcaggggctt agaaaccctg 64680
tatgtatggt aataacgata cacagggacc agcttcagag agacaggtca agtttacttg 64740
tggtgattca agggtgatat agttgtctta gttagggttt ctattgctgt ggggagaaac 64800
catggccaaa aacacaaatg aggaggaaaa ggtttattgg gcttacactt ccacagcact 64860
aattatcatt gaagaaagtc aaggcagaaa ctcaaaccag acaagaaccc agaggcaata 64920
gctgatgcag aaaccatgga agggtaatgc ttacatatta ctcatggctt attcagcttg 64980
cattagcttt ttattattat taatcattcc attagtttac atctcaaatg atatctcact 65040
ttcaggttaa cccctccacc aatccccatg aataataacc caattcctgg ataccctcc 65100
attgaccccc atcccacatc caccctccac ctccccctt gcttgatga gatttctccc 65160
ccatccactc acattctctg aacccactgc tccagcatcc acctacactg gtgcateacc 65220
cctcccattg ctgtcaggca aggccatcct ctgtacata tgtatctgga gccatggatc 65280
catccaggca cactccttgg ttggttgtct agattctgga aaaactaggt gatcaggcca 65340
gcctaagttg ttattccatt ggggtagcaa ttccctctg ttctccagt tcttctgcca 65400
gctccccac caggttccct gagctcagtc tgatggttgg ctctaagcat ccacatctgc 65460
attggtcagt tgctagccag acttcccaag gaactgccac accaggttcc tgtcagcaag 65520
cacctcttga ccatggcaac agtgttaggt ttggtgtctg cagacagggt ggatctccag 65580
gtggagcttt ccccaaatgg cacttccttc agtctctgtt caattttttg tccctgttct 65640
tcttttggat aggaacattt atgggttgaa aatttgagat gggtaggttag ctcatccct 65700
tgacctggag ctgtgcctat ctattggagg tggctctctc aggttctgtc tccccctct 65760
ctgtgcattt ctgctaattg catctccttt gggctcctgg agcctcatgt ttccctgggtg 65820
tctgtgaccc tccagtgact gtccccagtt cctcatttct tactgctaca tattttttgt 65880
tcgatatctt gaccttctgt atctctttga catctcctcc agttcctgat acttccctcc 65940
ttatttcctc accctcctct ctccctccca ggtcttctc taatagaaca aaaaatgggg 66000
aagagactca aatacttggg cacagaagaa aactccctga agataacacc aatgtgttat 66060
gctttaagat caattgacaa atgggacctc agaaaatgaa aaagcttctg taaggcaaag 66120
gacactgtca ataggacaaa acagtcaccc acagattggg aaaaaatctt taccaaccct 66180
acatctgata gagggctaata atccaatata tacaaagaac ttaggagtta aactccagag 66240
aatcaataaa ctctactaaa aaatgagata aacagagaat tcatgactaa agaaacttga 66300
gtggccaaga agctcctaaa gaaatgttca ccattttagt tcatcaggta aatgcaaatg 66360
aaaacaaccc tgagttccta ccccacacca gtcagaatgg ctaagatcaa aaactcaaat 66420
gacagcagat gctggtgagg atgtggaata agatgaacac tcctccattg atggtgggggt 66480
tgcaagctgg tacaaccact ctggaaatca gactggtggt ttctcagaaa attggacata 66540
gtactacctg aggacctagc tataccactc caggaagtat acccagaaaa tgctccaaca 66600
tgtaataaag acacatgtct cactatgttc atagcagtc tatttataat agccagaagc 66660
tggaacaac ctagatgtcc ctcaacagag gaatagatac agaaaatgtg atatatttac 66720

```

acaatggagt actatgcata gatttaaaac aatgacttca tggaattcac aggcaaattg 66780
 atagaactag aaaatatcat tctgagttag gtaatcaaga cacaaggga cacacatggt 66840
 atgtactcac taataagtgg atattaacgc aaaagctcac aattgccata atacaatcca 66900
 tagaccatat ggagcataga aagaaagacc aggatgtgga tgcttcagtc ttgcattgag 66960
 gggggatcag cttgcattct taagaaaccc aagactatca gccaagggt aacaccactc 67020
 agaatgggct ggtccctcac ccatcaatca ctaattaaaa aattgcccta caggcctatt 67080
 gaggcacttt catttttttc tttttttatt agatattttc ttcatttaca tttcaaattg 67140
 tatccactat accctcccc caacctgct cccaaccta cccactcctg cttcctggtc 67200
 ctggcattcc cctgtactgg ggcatatgat ccccgcaaga ccaagggttg aggcaatttc 67260
 ttaattgggc ttcctttctc tcatatgact accacttggt tcaagatgac ataaaactat 67320
 gcaacacaga cagtatatat atatgtatta tctatcatct agaaattcat catctatgca 67380
 ttcacatcat atctatccat catctatcaa tacatcattt gtttatccat catttatcta 67440
 tgtatcatct attgtcgtc tgttcacct ctacctatct atctattaaa aaattaactt 67500
 gatcagggcc atagtgcac aaacttttaa tcccagaatt tgggaggcag aatacggcta 67560
 gctgatcta catacagagt aagctccagg atagccagag ctacacagga aaaggttgct 67620
 tcaaaacaac aaaaaataaa ttaatgtgta taatgatcaa ggaagacact taacataaat 67680
 ttcacatct atgggaatcc atgaacctgc acacataaaa acgtatgttt actgaatata 67740
 catacacctg gagtatttaa tttctgaagt acactagtga aatgtcccat ctatccacac 67800
 aactctaggg atctgggtta aattcctggg acacaagtaa atgaggagg ggggagaaca 67860
 gagtctcaa aagtgtccc tgaagtccat acatgtgctg gctatggtgt atacaccac 67920
 tcttagacat gcacaataat aaataacttt ctaaataca gaagaatcta attacctcaa 67980
 aaagagatct ttattacaga ttgtttcaaa tgctagacta taaaagtta ctcagatagc 68040
 atgtaaactt ttgatatcct gttgttcttt tctcaacata ccagagatga acataaaaaa 68100
 gaggtatggt ttcctctttt ttgaatatat atttaattgg ttgtattgat gacacaagat 68160
 tccaatacac ctgatcatgt atgacatatt agtttctttt ggccaactac ttggcataaa 68220
 cagtttgaga aaggaagtgc tgattcactc atgatttaag atagtgtaca gcccatcata 68280
 gtgggacaga aactggggca ttaggccta ctctgtgaca caccattaag aaatatcact 68340
 gactgtccct actgcaaaag ccattactcc tccatagtgc ctcagttagg agtagacct 68400
 taagtgcac ccataactat gcataatat taatcatctc tttattgatt atttcatcta 68460
 tgcattgcat caacctgca tctatctatc tatctaactc attacctatc tatctatcaa 68520
 tctatcaatc taccatcat ctattatcaa ttgatctatc ttatagtgat atatcatttc 68580
 attctctata atctaccac ttataatcta tcacatatc ttcacatc tatatcaatc 68640
 catcatctgt ctatcatcta atcagtcttt tttcacctg tcatctacca atatgtttcc 68700
 tttactacta tcatgttcta tattgtgaca cagctcact aagaagcca gaaacttact 68760
 ttacaacact agctggactt gagttccatg atcccacatt ctcagactta caagtatatg 68820
 tgattacata gataaataga taggtttata ggtaggtagg taggtaggta ggtaggtagg 68880
 taggtaggta gatagataga tagatagata gatagataga tagatagata gatagataga 68940
 taaatagaaa gaaatatatg tgatagattc ataattgata gatgattgat agatcaattg 69000
 agagacagat aagtacatat ataagaagat agatggatag agagatatca atacagaatg 69060

tatagataga aatagataca tatagatgat atagatagat taattagatt gataaacaca 69120
 gaatatacat agatgcttat atagatggta gtagatgtat agataacagg tggagagtta 69180
 gatgatagat tttatgttag acaagcatat gatatctata aacatatgtg tctatgttat 69240
 gtagataggt aatagattaa tgatacacia ataaatgggt gatatatgga tgagtgaatg 69300
 gatagatata tccataagta ttttcagta tatattaaac tgaaatattt ctattgatat 69360
 atgaacatat atacttttta taagtatact aatatgtttg taaatattta gatatctgat 69420
 gtatatacat gtctatctta tatatagatg tcatcttctt atctatacct catatatcaa 69480
 taatctgtca tctacctatg ttataactca ttaaccaggt taatcataca caaattcaac 69540
 taaaataaat tcttctctt tttattggat attttattta tttacatttc aaaagttatc 69600
 cctcttcttg gttttgcctc tgaaaacccc tateccatct gccctccccc tgcctctatg 69660
 aggggtactcc ccaaccacc caccctccca ctccacctc accaccttg cattctccta 69720
 cactgggtgca cctagccttc acaggaccaa gggtctctc tcccatgatg ccagataagg 69780
 ccatcctctc ctacatatgc agctggagcc ttgcaacccc cttcaattcc ttcagtcctt 69840
 tccctaattc ctccattggg gtccctgtgc tcagtetaat caatgattgg ctgctagaat 69900
 ccatactgt atttgtcaga ctctgtcaga gcctctcagg agacagccat accagggtcc 69960
 tgtgagcaag cacttcttgg cataggtctg gtttgggtgc tatatatggg atggataccc 70020
 atctctagat ggcttttact tcagcctctg ctccacactt tgtccccata ttccttttag 70080
 acaggagaaa ttctgggtta aaattttaga gataagtggg tggccatata cccaactag 70140
 gggccttgcc tatcctctgg ttatggcctc tacaggtcct ccctccactt tgttgggcat 70200
 tttagctact catctccact gggctctggg agtctcttgc tttcctggca tctgagacat 70260
 taaggtagct attcccagtt cgccatcccc cattgctaga cactctctt caatttctg 70320
 accctctgtg tatcataccc atctccttcc atacctgate ctgtccccct ttattgtgtc 70380
 tcttttctct ctctcctcta agtcttttgc accctctacc tctgtattt tgttccccat 70440
 tctaaagagg actaaagtat ccacacttgc tcttcttct tcttgagcct catatggtct 70500
 gtgagttgta gcatgggtat tctgagcttt ttacctata tccacctatc agtgagtaca 70560
 tatcatgtga ccatgtatgt tcttttgtga ctgagttacc tcactcagga tgatattttc 70620
 tacttccatc catttactta cgaatttcat aaagtcgttg ttttaatagc tgagtagtac 70680
 tccattgtgt aaatgtccca cattttctgt atccattcct ttgttgaagg gcatctgggt 70740
 tatttccagc ttctggctgt tataaatatg tctgctatga acatagtga gacgtgtcc 70800
 atataaatatg ttggagcatc ttttgggtat atgcacagga gtggtatagc tgggtcagca 70860
 ggtagcacta tctccagttt tctgaggaat agccagactg atttccagag tagttgtacc 70920
 agtttgaat tccaccagcg ttgggagagt attctcttt atccatatcc acaccagcat 70980
 ctgctgtgac ctgaggtttt gttcttagcc attctgctg gtgtgaggtg gaatctcaag 71040
 gtcattttga tttgcatttc ccagatgatt aatgatgttc aatatttctt aaggtgtttc 71100
 ttggccattc gagactactc agttgataat tttctcttta tctcactacc caattttaat 71160
 agggttattt gattctcagg actctaactt ctggaatctt tgtatatatt ggatattatt 71220
 cctctatttg atgtaggatt ggtaaagatc tttcccaatc tgttggttgc cattttgacc 71280
 tattgacagt gccctttacc ttatgctttg caattttatg aggagtgtaa aatattatgg 71340
 agtgtaaaaa tgtgaattaa aaataaaatt taaaaaagtc taaatttttt agtctctttc 71400

tctatttctt cccctgcccatt gttatcattg agtagagagt tgttcagctt ccattcctat 71460
gtgagctttc tgttgatttt gttgttattg aagaccagcc ttagtcggtg gtgatctgat 71520
aggatgcata ggattatttc aatcttcttg tatctattga cacctgtttt gtgacctatt 71580
atgtgggtcaa ttttggggaa ggtactatga ggtgctgaga agaaggtata ttcttttgtt 71640
ttaggatgaa atgttctata gatatctgtt aaatccattt ggttcataac ttctgttagt 71700
ttcactatgt ctctgttttg tttctgtttt catgatctgt caattgctaa aagtggggtg 71760
ttgaagtctc ccagtattat tgtgtgagtt tcaatgtgtg ctttgagctt tagcaaagtt 71820
tcttttatga atgtgggtgc ccttgcatth ggaacataga tgttcagaat tgagggttca 71880
ttttggtaga ttttttccct tgatgtgtat gaatgttate ttttttgata actcttggtt 71940
gaaagtcgat tttatttgct attagcttgt ttctttggac cttttcttg gaaaattgtt 72000
ttccagcctt ttactctgag atagtgtttg tctttgtcac tgaagtgcatt ttccagtata 72060
ctgcaaaatg ctgggtcttg tttacatata cagtctgtta gtctatgtct tgttattgga 72120
gaaatgagcc aattgatgtt aagagatatt aaggaagagt ggctgttgct tattgttgtt 72180
tttcttggtg gaggtggaat tatgtttgtg tgtctatctt cttttgggtt tgttgaaaga 72240
agattacttt ctgtcttttc ctagtataaa tttccctaca tgtgttggtg ttttccacaa 72300
attatccttt gtaggactga acttggtgaa agatgttgtg taaatttggt tttgtcatgg 72360
aatacttggg tttctccatc taccgtaatt gagagttttg ctgggtatag tagcctgggc 72420
tggcatttgc attctctttg ggtctgtata acatctgtcc atgatcttct gactttcata 72480
gtatctggtg agaagtctgg tgtaattctg ataggtctgt ttttatatgt tacttgacct 72540
ttttgcctta ctgcttttaa tattctttct ttgttttgtg ctttggtgt tttgactata 72600
atgtaagaga aggaatttct tttctgggtc agtctatttg gagttctgtg gtcttcttgt 72660
atgttcatgg acatctcttt ctttaggata gggaagtttc cttgtataat tttgttgaag 72720
atatttactg gcacatttag ttaggaatct tcagtctctt ctatacctat tatccttagg 72780
tgtggctctc tctttgtgtc ctggatttcc tggatgtttt ggattaggag ctttttacct 72840
tttgcattht gcattttctt tgactgttgc ataaatgttt tctatgctat cttctgcccc 72900
tgagattcta tctcttgtat tttcttggtg atgcttgcat ctatgactcc tgatttattt 72960
cctaggtttt ctatctccag agttgtctcc ctttggtgatt tctttattgt ttctatttcc 73020
attttttagat cctgggtggt tttgttcaat ccttcacct ctttggttat gtttctctgc 73080
aattctttta gggatttttg tgtttcttct taaagggtt ttacctgatt acctctgttc 73140
tcctgtattt ctttaagtga gttatttatg tcttctttaa agtctctat catcatctg 73200
agatgtgatt ttaaatacata atcttgcttt tctgatgtgt tggggtatcc agggtttctg 73260
atgactccaa gtagccttgg tttctgttgc ttatgttctt atgcttacct cttgacctt 73320
ggttgtctct ggtgttagct gaacttggtc tctctgaatg gatcttacct ctctatgag 73380
cttgtgagcc tgtgatctta ggtctatcag cactctcag agaccagttc tttctgggtg 73440
gggtttgggt aaggagaact gtagcacagg gttatctcag gggcacagat ggaaaccaga 73500
agetaagttc ttcctcttat atctgcgcct caacataccc acatcacctt gaacctttcc 73560
taaataatacc atcatgattt atcccatthc agtagttgtt ttacactata tatttatttc 73620
aattttatcc tggagctatg tatagcaata aagtcaattt ggcaagagag ttcactgaca 73680
tcttttattt aaaatgtgca tagaacctc taaaattggc tgcttaatat ggtttttgat 73740

```

ttggtttgat tttgattttt tttttttttt ttttggagac agggtttctc tgtgtagccc 73800
tggccttcct gaaccaggct gggcttggac tcagaaatct gcctgcctct gcctctgttg 73860
gaattaaatg tatgtgctac gaccacctgg caagataata tgtatttaac tcagtctgaa 73920
acttcttata atctactgtt cctgtattac ctggaaccaa cctccctagg caccattgac 73980
catgtgttgt gaggattaat tcttactaa acattaattt agtatcaca gtatgtttta 74040
catttttttc taaaagtgtc aaatcacatt acaccattt ccaaactgct tcataattta 74100
gtttgttttt atttaattct gtgcacactt gcaaacaaaa gctttcaagg atttcgtcag 74160
agttgaaaaa tctgtatttg tagattttta tttgcatttt tgcaaaactg cataaattaa 74220
tatttgcatt ttatgactac aagcgagcct gataaatttt gctactaaca cacattctga 74280
tatgtttctg tgtaagtaa atgttttaat tctcaaactc taatctcata catctggaag 74340
aggaggtgaa gaggatctca aagaagttgt ggaggggaac cataatcaga ttatattgca 74400
tgaaaaagag tataattttca attaaaaaaa tgtaaagtc atctatctgc cataaaagtc 74460
aattcgctta taaaataaca tttttaaatt ttttatttga tttttcttt atttacattt 74520
aaatgttata ccttttccca gtttctctc tgaaaacccc ctatctcttt cccctcccc 74580
ctgctcccca acccaccgac tctgtcttc tagccctgac attctgctat actggggcat 74640
agaaccttca caagaccatt gatgaccaac taggacatcc tctactacat atgcaactag 74700
agccacaagt cccaccatgt gttttctttg attggtggtt tagtacctgg gagctctgag 74760
ggtatgaatt ggttcatatt gttcttccta ggaggtaca aaccttca gctctttggg 74820
tcctttctct agctccttca ttcggggccc tgtgttcagt ccaatggatg actgtaagca 74880
tctgcttctg tatttgtcag gcactggcag accctctcag gagacagcta tatcatgctc 74940
ttgtcatcaa gctctgttg gcatccataa cagtgtccgg gtttggtggt tgtttatggg 75000
atggatcctc aggtggggca gactctggat ggtcattcct tcagtctctg ctccgaattt 75060
tgtctctgta cctccttcca tgggtatttt gtcccccctt ctaagaatga tcgaagtatc 75120
cacactctgg tcttcttct tcttgagttt catatgcttt gagaaatgaa tcttaggtat 75180
tctgagcttc taggctaata tccacttata agtgagtaca tattgtgtga gttcctttgt 75240
gatttgttta cctcactcag gatgatgcc tccaggcca tccgtttgcc taagaatttc 75300
atgaattcat tgtttttaat tgcagagtag tactccattg tgtaaattga ccacattttc 75360
tgtatccatt cctctgttga gggacatata ggttctttcc agctcctagc tattataaat 75420
aatactgcta tgaacgtagt ggaacatgtg tccttattac atgttggtgc atcttctggg 75480
tatatgcccc ggagtggtat ttctggacct tccgctagta ctatgtccaa tttctgagt 75540
aaccgtcaaa tggatttcca gagtggttgt accagcttgc aatcccacgg atactgtcaa 75600
taagacaaaa aggcaaccag cagattggga aactatcttt atcaatccta catcagaaag 75660
aggggacata tccaatatat acaaagaact ccagacatcc acataaccct atttaaaaat 75720
ggggtacaga gcttaacaaa gaattctcaa ctgaggaata ccgaatggct gagaagcaac 75780
taaaaaatgt tcaatatcct taatcatcag ggaagtgcaa atcaaaaca ccctgagatt 75840
ccaatacctc acaccagtca gaatggctaa gatcaaaaac tcagttgaca tcagatgatg 75900
gcaaggatgt ggaaaagaat aaaatgacaa tattaactgt gtctgtttta caagagtttc 75960
tctataatgg cactttcttt ccacagctca atgagaattt gatatttga tttttaatgt 76020
gtattatcat gtacagttgg catatgtgct gatatgtggt gtgacagaaa atacagtgaa 76080

```

aaatattcac aggcctacta ttttgaaaat tctggtttta tgtgcataat ttggaataga 76140
 ttctcagacc ccttctgtgg ggaaatattg gccgctctat ggttctgggt atatacccca 76200
 gagcctttgg ggacaaatac ttctaaatat taatttttca gctatatatt tataataaaa 76260
 tttgagtgtg ttcacaggca tatttccttt ctgtctgcca tcttcataat atgagcatgc 76320
 ctagtgggtg tgctatgctt tcaaacaaat gatgcataat ttacaggaa tcatgaccaa 76380
 acatgcatca tgctattttg tttctgaaac aaagaacttt aaactgagca tggatcatgaa 76440
 tgtgcatctt cactgtgcat tttcagaaat gtgtctgctc acaaatcatt tttctatatg 76500
 aatatgcaaa ggtcccctga ttaaatgtca ctctttaatt gttgaaggaa ttgtcattac 76560
 tttggaaata acctcatgtg tcatctatta cacaaaataa atatttttgt actatgttca 76620
 ctctgtaaac accaaaatgt gaattcacag accaaaagaa caattcttat caaatatgta 76680
 ttacacacat aacagattca aatactttta ggggtgtattg tgttattatt attctcttat 76740
 accatcatag gcttctcagt gttctccatt gtttacttca tagcttcgtg ctacatcctg 76800
 gttagcatga aattggaatt ttctgtgctg ggcatatttt tgtttttctg aacagaaaat 76860
 tccccattca ggctcctgaa aaactttctg catttgagta gaacagatac atttttaaaa 76920
 cttacattta aatgttcttt cttttcctat ctaaagaatg ttgttagctt tctggaaact 76980
 tctaaacaaa aacctggtcc aaatcaataa acttttataa aataactccc tatggtttag 77040
 ccaatgcaca gtaatttata tatttcacca aactaagtga tgatacacag acatttttta 77100
 tattatgctg actgaaactt attatcagat gattgagaat tttgagcact agtttgaatg 77160
 gaaaattaat aataacaata ataataaata aaattttatta taattttcta aggatattct 77220
 tgttaacatt ttgtgtcagg acactattgc tctaataatga aaatttgagg tttcttttct 77280
 ccttttgaga catttgaaag agtttgtgaa gcaggaatga tgtgttggtc cagtggacaa 77340
 tgaagcttgt caccaatcct catgacttga gttatagcac aaggaacct gttgtagaag 77400
 gaggggatca acacccaaaa gtgatcttct gggctctgtg gcatagacat acatatacac 77460
 acagtaaata ttttttaatt aaattaaatt aaaaggatcat aaagtcaagg tattaactac 77520
 cactgattat ccaatccctg actttgcttt gaggatgaaa aattttttct aagagagggt 77580
 ttttaattaat ttattttatt gtttgtttgt ttattatgta caatgttctg tctgcatgta 77640
 tgcctccatg ccagaagagg gtaaaagatc tccttataga tggttgtgag ccacatgtg 77700
 gttgtctggga attgaactca ggacctctgg aagagcagtc agtgcctca acctctgaac 77760
 catctctcca gccttggtat agatctattt ggttacctgt ctatctatac atgtatctat 77820
 ctctctatct gatactttct gccttgagg agtgtgttca ttttaactgt gcggcctaga 77880
 caccacaaa agattagtta tcaccattct tacagtttag atttcagcaa attcaacta 77940
 atgtagcttt gatttctcat tgtatttgc actctgtcaa tatgacttat ttttttctc 78000
 atgttgatct ctacataata tcagcctttg actttgttga cttctctcct acttctttat 78060
 ttttccttaa ttttactata atatgacata tgcagcttcc tctaatacgt ggtttaattt 78120
 ggtgttaatg atggaccata ttgagatgag tgttttagatt gttagccatg caatattaca 78180
 gtccatgacat aaagacgttg acaactgtac attgtccatt tgctaccatg agtccatgat 78240
 aaaatgtaca aaatcctaca aatttgcca gattccattt tcttgaaac attgaaatca 78300
 aatgttattc ttttctcctt tgacagtgga ttttgtgtga ccaggctgtt ttatttacac 78360
 atatttgcaa atttcaaaat tttcctttta ttcacgactt ccagtttagt ctctatgctg 78420

```

gtgtttgtca acttgttaca aatctatgca tacctacaaa gttggattct caattgaaaa 78480
aatgcttcca tcacatgggc ctgtaggaaa tcctgtaggg cattttattg attggtgggt 78540
gatgttgaag gccc aaaatc aatgtgggtg ataccacccc taagctgggtg gtcctggaat 78600
acataagaaa gcaagctgaa aaagtattgg ggagcaagta agtaagaagc acccctccat 78660
ggcctgtgca tcagttctgc ctccaagatc ctattttgag ttctgtcct gacttcctc 78720
agtgatggac tgtgatttga aagtgggaaga caaatgtacc ctgggttata attgtgtcct 78780
tcattccagcc caaacccatt gcttcctgat tcaccaagat atcagaaaaa aatgtagcaa 78840
tctcttccca acacacacac acaaaattag tttgctttct attgctgtga caaaccccta 78900
taactaaaac ctaacttaga aaaggaaagg gttaacccat cttacacagg tcaccatcta 78960
ccattgaggg aagttagggc agaattctca atcaaaaacc atgtatgcta tgtattggct 79020
tgttttttaa ctcatgctta accaacttcc tagtacagcc cacaagcct gactagggaa 79080
tgatgagccc aactgagat gagtcacca tatcaatcat caatcaagc attccccaac 79140
agacaatccc acagaaaaaa acatgagctg ggcaatccct caattgagac ttcttcccta 79200
aatgattcta aactgtgtca aattgacat taaagttgac tacgaaaaa aaaatagaga 79260
ctcttcatct gcgccatgtt tcccaccatg ataggccaca ccttcaaact aggaccaaa 79320
ataaggcctt ccctcaattg actactgtca ggtattaaat caaagtacca aaaagatatt 79380
tatatgggtc tctaagtcct ctctctagta ttaacaacaa actatatcaa caactgtcta 79440
aactatcagt ttagtaaga aagtgaata actctggatt aaaagtctct acagttaaca 79500
agcactaaat acttccagaa caactgctgt aattactgtt gaatatcaac ctgacaggat 79560
ataggatcat ctataacata aaccctttgg tatatctgtg agaattgctt tagattggta 79620
taactgaggt gggaaatccc tccctaagtg tgggcactac tatttaatgg catttgattt 79680
tgtataccct ttctgcttg tatcagagga gttaggggaa aaacaaagg gtaagtgaca 79740
aggggaagaa ggggtgtcct tcccacttg ggtaccacag aacttaatat ccatcaaagc 79800
ctacctgatc agtggctttg aggatcttct ttaatgaatt tgaagaatat tatttgagga 79860
ccccagaggg tggattattt gtcttgaatt ggttacttgg gtgaccagtg ggtgggcact 79920
ttagagttag aaagagacat agcagagctg ggcaaggctc gggctttggg tgataacatt 79980
atgatctgaa gggattttga caggatttat ggtaattctg aggtgcttca tagtagtgaa 80040
tgagagggat taaaactcag gctgacatcc aatttcaggt acaacaggac tgaatgggac 80100
atcatcgag tattatttta acaaacacc caccatgaat ggcatggaaa aaaggctggc 80160
aagtgaattc tttatggttg ccaccctctg gcttgagta ttgccatgc tgacctctaa 80220
ttcctggaaa acaaaaaact taagaaaaca aaactagttt cctattttca aataaaaatt 80280
gaatgactta ctacaagaa aattctcccc attctaatat tttatgtgag agtttgaaaa 80340
gcgttttttt cccattttt tattaggtat ttagctcatt tacaaaattt gtatattctt 80400
ttttttcttt ttttgtttt tttccattt tttattaggt atttatttca tttacatttc 80460
caatgctata ccaaaagtcc ccataccca cccacccact cccctttttt ggccctggcg 80520
ttcccctgta ctggggcata taaagtttgc aagtccaate ggcctctctt tgcagtgatg 80580
gccgactagg ccatcttttg atacatatgc agctagagac aagaactccg gggtactggg 80640
tagttcatat tgttgttcca cctatagggt tgcagttccc tttagctcct tgggtgcttt 80700
ctctagctcc tccattgggg gccctgtggg ccattcaata gctgactgtg agcatccact 80760

```

```

tctgtgtttg ctaggccctg gcatagtctc acaagagaca ggtatatctg ggtcctttca 80820
gcaaaatcct gctagtgtat gcaatgggtg cagcgtttgg aagctgatcg tgagatggat 80880
ctctggatat ggcaatcact agatgggtcca tccttttgtc acacttccaa attttgtctc 80940
tgtaactcct tccatgggtg ttttgtttcc tattctaaga aggggcaaag tgtccacact 81000
ttgggtcttcg ttctcttgag tttaatgtgt ttagcaaatt gtatcttata tcttgggtat 81060
cctaaatttc tgggctaata tccacttate agtgagtaca tattgtgaga gttcctttgt 81120
gattgggtta gaaaagcgtt ttttttcctt aggtttatct atattaaatc tttggctgta 81180
aattctcagc atttttgccg gtggatttga acaactttgt gtgctgaact gttgaactgt 81240
gaatgaatga atatgaatat gcaggaaaca gatttttggc tgacatctta atcatttctc 81300
agccacttaa caaggccaaa ttcatactga aaaacaaagg cttattggat tatctacatt 81360
gggaagatga acaaagagat ccagtaacct acctcactc accccttac accacccac 81420
ccaaccctaa cgctacccca ccctcatctc cttaccactg ctaccacatc accacgccac 81480
cattaccctc atcctcaccc ctggtaacaa acccattgtc aggtctctga cataagggtta 81540
aagtagcagt tctggtgaag ctgtggtccc acccatacct gaccccgag agagtctatt 81600
atcctaaaat gtgaacttaa aagctgtcaa actctctcag ggaaaaattt accttctacc 81660
tagtctgggt ttctggattt gtcttctctc gggatgatat ccctgaggaa atttcagact 81720
tttgagtccc attatttggg tattccagaa actagaggga atggtacaaa gtccttacc 81780
ctacccccaa ggctgggtta agcatctctc tatagaaaac tatcatggga ggcttaactc 81840
tgtgtagaaa ctgcgagcaa aaaacaatgt tttgtctacc ctcaaattat ttccatttaa 81900
atatttatta cagtattctc attattgttt taaaaataaa actgtgggtta tgtagtgga 81960
acactgcctt aacaactatt ttaagattta ttgtatatgt taggtctcaa aactgacctg 82020
gctgtcaggt tctctcacca tctctaagtc gttacctgtt acagggtatg gccaaactccc 82080
tacacaaaat ttctctagct gggctgctct tcctatata atgcatccat tttgatcatt 82140
cagccccctt ttgtctagcc tttttccctc ttgagctctt gatctcctgg ctttccactt 82200
cccactctcc cctctccctc tgtttacatg cccctgctca gggacctgtt gactctggac 82260
tctcccagat gtgcctgcct ctgcttatgc tctctgata tctacaataa acctatcatc 82320
tatatctaca ataaacctat ctatcatacc taggagtagt cacgtcctga tttttatttt 82380
ttcattcaat atatgcataa aaaatttatt tcagtgcctc aaaagacgat ggagtaaaca 82440
tggttttgtg actggtttta catttatatt taggaatatg tatgtatata catatatgca 82500
tgcaatataa ttcatattga atggggcatg gacttgaaag agagcaagga ggggtatatg 82560
gaagggttta gagagaggaa atggaggggc aatgatataa ttatattatt attatctcaa 82620
aaaaataaaa aggagatttt aaaagtaata caatattgga ggtggagtga agaaccctgt 82680
tcattcccca gcaccctggt gggcagcaca caaccactg caaatccaat gcctatggat 82740
cctacaccct ctttcagact tcacacacac ctgcaaaaag aaataaatgg ccacacata 82800
aaaaagaaat tcaactttga aaaagtagtc ccacattaga aacattttta aacacacctt 82860
cttcttgga tcaactatgc accttttate tggttttact gaagaacttt catcaatgca 82920
tcaataacat tttattaatg tcataaaatg aataaacgcc ttgaactcta ggaaggaagg 82980
aaggaaggaa ggaaggaagg aaggaaggaa aggagggagg gagggaggga gggagggagg 83040
gagagagaga gagagagaga gaaagagaga gagagagaaa gaaagagaga gagagaaaga 83100

```

gagagagaga aagaaagaga gagagagaaa gaaagaaaga gagagaaaga gagagagaga 83160
 aagaaagaga gagagagaaa gaaagaaaga aagaaagaaa gaaagaaaga aagaaagaaa 83220
 gaaagaaaga aagaaagaca gacagaccaa agcatatatt tcaggaaggg gaatgcaagt 83280
 gccaatcag aggtcacaga gggaaaaaag atcattggta ataatgaaa atgaatgagt 83340
 tgttatctgg cctggctgta tccattccac tggtagaaa caaaactgaa tgtcaccata 83400
 gactgtaatt gtaacaaccc ttcacttttg gcatcaatct cactgtaaga aatccacatt 83460
 gggaataaat caattcagga agtgtgagtc cttgaaggga atactaggac ccagtatca 83520
 tttttcctct ctctctctct ctctctctct ctctctctct ctctctctct ctctctctct 83580
 ctctcctaca cacacacaca cacacacaca cacacacaca cacactttca gtcattttatt 83640
 tattgctaga acctcctgta gttccctgtg gcctccacta tgtaactgag catgaccttg 83700
 aagtcctgaa ttcctgaccc cttccctgc ctatgcctct catatactga gaagatggat 83760
 gagacacaca caccagacct tgacatttat tattattgtt attgttggtc aaagtctgac 83820
 ttttatgtaa ttacatgat ttctcctca atagttaa ataggaaattac tgattccaat 83880
 tctctatcat taattcaatt acttgaagc taatgctaaa cagcacatga taggaatata 83940
 tattttgtgc actgtgcagc atgcacctaa caaaaattga ttaccctgtg tagtgatagc 84000
 ttttgactg gctggttttg tgggtcaact ggacacaagc tggagtattc acagagaaag 84060
 gagcttcagt tgaggaaatg cctccatgag atccagctgt ggagcatttt ctcaattagt 84120
 gatcaagggg gaagggtcgc ttgtgggtg taccatccct gggctggtag tcttgggttc 84180
 tataagagag caggctgagc aagccaggag aagcaagcca ataaagaaca tccctccagg 84240
 gcctctgcat cagctcctgc ttcctgacct gcttgagttc cagtcctgac ttcctttggt 84300
 gatgaacagc agtatggaag tgtaaaactga ataaaccett tctctcccaa cttgcttctt 84360
 ggtcatgatg actgtgcagg aatagaaacc ctgactaaga cagctttata gagatcttgg 84420
 catagaaact ggaatttttag aagaaaaaat aagtggaatg ggttaaagtt tgaccttcaa 84480
 gtgtggattt ctgcttcact cttatctcag caaagcaaac acctggcaga acctccaga 84540
 aggagtgatg ggcacagcta cctgaaaaga ttctgtttgc ttagaaagga attgttcctt 84600
 tattgttccc tgccagccca gtcctggaag cttgataac aaatatttgt acatttttat 84660
 tgttccccgc aaaatcatcc tctcataact gcagatcctg tcaacatgcc tgccagatgg 84720
 cagaaatcac ctatcatgtg acctataaaa gctgtgagaa attatggggg gtttggaac 84780
 ttttcaaagc atcagcccag tcatagctac aaaatttctt gtgtctccca gggcctgctg 84840
 ggttgattcg tggttggagt tttccatagc agcacacaag tggaaaatac attttggtag 84900
 aatcacctca ttggtgtcaa ttgatttcat aagaaaaatt aacagtcaca ataagattgg 84960
 gtactttcaa agttccctat gtccaaatag tateccattg tactctcaga acaagtgaac 85020
 attgcaacct ttatttcaaa agattaatat tetaattatg tttatatcta ttatatattg 85080
 tattatacac acacgtatgt actatgagct ttatttttac acttttattt tagtattaat 85140
 tgtgtatatg tgtgtatatg caatacatat tatattacac atatatatgt acattacaat 85200
 ttttatttta aaatttttca tttcagttat atgtatatgt ggagtggggc aggggtggga 85260
 catgtgagta tagtaccatg agaggccagt agagggtggt gagccccag gatcaggaaac 85320
 aacagggtgt tgtgggcttc ctgtgtaggt gttggaagct gaacttggtc cctatttgtt 85380
 ggccttgctt gtgggggatt acatgctaca ctttgcctgga ggaattacat cagtggggga 85440

gagctatttg agattctgaa acattcagca agttctgttt ggttggagat gggagctctc 85500
 agctccttgt tgggtgccacc ttgccagccc ctctctgtctg tacttgtccc ttatgtgtgc 85560
 ttctgtcaca gccatgcccc cccctcacca ctatgcttcc ctgtgccaac gaactcatca 85620
 ccccttggat cttaaatgca taagtcaaaa tatttcttgc atacactcat ttgtttgtg 85680
 atatcttgtc acagcaacag aaaactctta ttgcttaaca ctaagctacc tctccagccc 85740
 ctagagggtt ttggtttggt ttggctttta atatcatttt ttttttattt atgtgtaggg 85800
 gtgtgtgcct gtgtgagttt tccccattta atttatttat ttattcattt tacatgcccc 85860
 cctccttgtc cccactcaca tcgtctcttc cccattcccc ctcccccttct cttctgaggc 85920
 cccctctgggt attccccgat cctggcacat caagtctctt cagagctagg tgcattccact 85980
 cccctctgagg caagacaagc agctcagtta ggggaacagg ttccacgaag atttgagaga 86040
 aggaatgaag gccctaaagg ggatagaact ccacaagaag accaacagag tcaataatc 86100
 tggaccccgga gaggtctctca gagaactgaac caccaacca agatcctaca tgagctggac 86160
 ctagccctcc ccacccccac cccccacata tgtagtagat attcaattcg gacttccaat 86220
 aggagctgtc cctaaagctg ttgcctgtct gtggaatctg agagattagt tttttgtttt 86280
 ttgtttgttt ggttggttgg ttggttgttt tgggtttttt gggaggattg gggggctgtt 86340
 tgtttttgtt tttgtaccct gaaagtctct caatggaata gttctcagtg ttgcttctat 86400
 ttcatlcatg ctaccacag gcttgccttt gaaattacat gtatttttcc cattttcttc 86460
 tctctaaatt tgagtcaatt tctggtatca gcatgtttga aacaccaagc agaataatgt 86520
 gtctgcttta ttttataatt tgtcgtactt atgcacatgg aaacacacac acatgttatg 86580
 tgctcaatta ttggaacaaa tgttttcctt ttttatctac tctcactatg tgacccttta 86640
 tttgtttcaa gtaaataaaa taacaaactg ataatacaac taataaaact gtaacattta 86700
 cagatgatgt cattatttgc atcatctaatt tctcatggaa aaggtgcctt tttcttact 86760
 aatgctactt acaggtagac actcttagcc aaaaataatc cggaagtga actgcctgcc 86820
 aacacaaacc actgatgact gataagattc ctgaggatta ggaaaaccac acggttctta 86880
 cagggaacaa ctgattcttc agagactgcc taagaaaaca ctgacacatt tgcagaaaag 86940
 ctattgagtt ggataaaagt ttacaaaaat gccacaaatg aattttaata ctaaacctgc 87000
 aaaagaaata tgctaaggaa atcacacaca cacacacaca cacacacaca cactaccacc 87060
 accaccacca ccaccaccac caccaccacc accaccacac aaataaatgc ataagccaag 87120
 tcctgagggc ctgggatatc agccccaaat tcagtagget gggtaagaag gaagccagga 87180
 ctctgtttta agatgaattt ctttcaaaat ccacaggaac acatcatgca tatcatatca 87240
 tgtgtatatat cctggccctg gggttgtgga gtgtccaaga aggatgcgga ggcacaggtt 87300
 atgattaatt atctgagcat atcaagcagc aaactcagac actccttctt cttctgtctt 87360
 ccaaaggatg tttgtttcgg gacattttct agaaagacag gtaccaatgt atattgacag 87420
 atgaggcaca ccaatgatag tcaaaggaaa tttttcacat gagtctttct gggttgactt 87480
 acaggagggg gttttccacc atcacatatg gaatgtttca ctttctgcca tttcacatca 87540
 gtaaatataa atattgatga gtgggcgtcc ttccttcaag acatgcattt aattgggttt 87600
 tgatcaaatg ttcaggcact gggaggaagc cagtggcatc aaagtgttcc acaaaccaca 87660
 catcacacta ggggactagt gtgaaaactc agtaaaagtt gcccaagtca tgtatctgtt 87720
 gttgttgttg ttgttgttgt tgttgttgtt gttgtcatcg tcattcttgg aggtggtggt 87780

ttggttttgggt ttgggagtggt ttgtttatatt tgtttgagac agagtctcac ttcatagctc 87840
tgactgatctt ggaactcact atgtagacca cactgaccct gaatttggag agatcctgcc 87900
tgccctctgcc tcctgagagc tgggattaaa ggcatgcacc actgtgacat gcaagttaat 87960
tttttttaaat tataattttt ctacaactaa cattcatcag tgtttcagcc tggaaggaag 88020
aaaacttgca tgcaatcaat gttttaattg aacaagaaca tatgcaaattg gcacaggcat 88080
ttctatcatt ttgatttaga agaaaatccc aagatgatgt tgcagttttc ccacctcagc 88140
tgtgaacact tactattcgt gattgagtct gcaggcagtt ggcgggcaaa agcctgtcag 88200
gggtattatt agccttcata ccagatcata aagaaggatt tgccaaaaat cctagtttcc 88260
agaagagctc tgttgtacca aggcagtgga gcatcgccac cttacgactg taccttgcaa 88320
tgcaactagc tcgcacaaat tacaaatgct atttattgat tggggcaggg aggggaaaaa 88380
aggggagggc agaggcagac tgttggttgg tttggttggg ttggttgggt ggtttgttgg 88440
ttggtgattt ttcaagacag gatttcteta acagtcttcg ctgacctgaa ctcttctgt 88500
acagcagtct agcctcaaat tcacagagat ccacctgect ctgattctcc agtgctgggc 88560
tcaaaggcaa gcgccactac tgcctagcct gtgttgtttt ttggttaagc aaaacatctt 88620
taaagtctta gattagatat ccagattaaa tgtctagact aagatctcta aacattttct 88680
aatataaatt ttatcagttg aaacttgtcc acttttatgg gatgctaagg atgtatggaa 88740
ctcaggactt tgtgcattca gtcccactgt ctggtagaca ctgttatgct gtatatctct 88800
aatggggagc agccaaaaac aaaaacaaaa caaacaaaa atccaaacct caattcctta 88860
attaattaat taattaattt tttagaacta agatttaatc aggaaagttg cattatatgc 88920
atacccttggt ttattcaggt aagcatagta agaataaat taaaagttgt ctgcacattt 88980
gaatttagat ggatatgaaa gtgtttcaga tttctactt aagtaaagtg aaacaatatt 89040
gaaatttttc gaaggttgtt actgtgggat cccgggtcca cagacacata aaataaatct 89100
ttgaaaaaat aatattaata tttagtaatg tgacatgaaa ttaaattaaa ccaatgtttt 89160
tcctctggca agaaacgcag aaagtaaaaa tgatacattg tttcgttgtt aaaaatccta 89220
atctcattta atcgatacac attgcatcca ttatgagttg cagtcattaa taataaaata 89280
atattattaa gcagcaagca aatagtctta aagcagcacg tagtgagacc tcagagctgt 89340
taatttccta ataaaagaat acacttccca ggaaacttta cggccaggcc aagcacttcc 89400
ggaaggaggg actacgggac ggcaatagga ccttctgtga agaaaaggga gaaatgtggc 89460
ttcaaaaaga accatactta ttcatgtgag tggcgatttg tcacatgtgt gtgacgatag 89520
ccaatatgtc tgaagagaaa gaccggttgt ggcgctaact ggggggacct actgcctccc 89580
tgtaagcctt ccttacaagg ctatctcggc gcaaggaatg ctggaaagtg tagtgatttg 89640
gctggaaact accagctatt aagtaaaatc gcgtcatcac cccgaccagt tctgttccca 89700
agcctgctga tctagacctt atcccacetc cgttctgtct ccattctgag cctgactgt 89760
gaaggtttca ctctcttcac ttacaggagc tttaggaag aagtctccca caggagctga 89820
gggtgggggg cgggcgggtct cctctttctg gcctctatcg gtactgcaag gaggggccac 89880
caattacatg caatttttat gccacactaa gatgcacaaa taaataaggc cagagattcc 89940
ccagagtcag gatttgagge tttggggacc aatgagagtt gttggattga atgcaaaatg 90000
tacacacttg gaaacaagac tgggcaaggc tgcattttct agtctgcagg gagacctgaa 90060
aagttagtag aagtacatgt gtgtgtcagt tctaaatgaa acgacggggg acaaatgcct 90120

gaggtgcctg ttagcatacc aaagcacatg atggcctcta gactcacttg ggaccgctga 90180
 ctatgtctcta ctcttctgat ctggcccat aacttaatcc aagccagacc ttctcctagc 90240
 atcttttacc tatataacca gccatttagg ccatgtctcc acttggtcct ctcaagtctcc 90300
 tctgttccct ctcttttctt ctctctttat tctctcacc ctttccacct ctgtcctctc 90360
 atggctgggt tcagtctact gtccagggtt agtccactac tttctctgct ctggactctt 90420
 ccagaagcct ctggctgttc ttatccgtac ctgggagtg ccataccctc atttgtacag 90480
 tatcttcctc cagcgtctcc ctgtggctga ccctggaggc ctttatgctt tctccctgga 90540
 aaaattctaa ttgggggggg ggggggaatc cagtttgtt caatgaccag acagctgaag 90600
 ggggtggctca agggccgggg cataggtcat tgaaatatac tcagggtac taggagtggc 90660
 agtcagtgtt caagtacaca ggaagcaact ttctctgcaa aggtataaag aaaagtaaaa 90720
 agttttgaaa aagctaaaaa tttaaattaa attaaagaca atcatctggg cagtgtggt 90780
 gcatgcctta aaaaccagca gattagggt ggagagatgg ctcaagcatt gagagcactg 90840
 actgtctctc cagaggctct gagttcaatt ccagcaacc acaagatggc tcacaacct 90900
 ctgtaatggg atccagtgcc ctcttctagt gtgtctaagg acggctacag tgtactcaca 90960
 tacattaagt aaataaatag atttaaaaaa aaaaccagca gattatacat gggagacaga 91020
 ggcaggtgaa tctctgagtt cgaggccagc ctggcctaca gagaaagttc caggacagca 91080
 aaggctatac agagaaaccc tgtcttgaaa aactaataaa ttaaattaag aggacaacaa 91140
 aggtgagctg agtgctttct gggccagtga gtccagggtc tcttaccctc tgaaccacat 91200
 ctccagtccc aaattaacct ttagtttcta ctcccagga acataaaaca agccctggac 91260
 cttataaaaag gtgtcaggag ataagagcag cctaaggett ctttatttct ttctctaca 91320
 ctcttggaag agaaagggtg gcaggaaagc cagtggctag ataaaataca aattgtcaga 91380
 ttaaaatctt aattctggtt gtatttattt tacactctct gaggactcat tgccctacag 91440
 tatgtttggg gactagaaag gaaatgaaat ctcaagtgtc gtagcccaaca aagagacaga 91500
 agcaaaaagta gtttgcaaag gacagtgaga aagtcctctg atgttctctc cctctccctt 91560
 tccttctacc ctcttcttct tgcatttttt ttgaccag ctctgtgac ccccatctcc 91620
 aaccctttga tccagtagga ctttcaagtt ttctgaacag tgctcaaaga aaacacttta 91680
 cttgtgggtt tccatatacct ctgagggtct gactttctgt cccagccag cagggtgtgc 91740
 tggtactaca gctggaagca aagttcccaa aacgtagctg aacacctggg aggctgattg 91800
 actggtagtg tgtggagatg tgcagagttg gaatcctgag agtccagagc ctaattatga 91860
 tttctcttgg acaattttca gctctctaga tagatgtccc taagccacct atgtcagacc 91920
 tgacgtcctg tgactaacag atttaaaaaa caaacaacaa taaaacattt tttttgtct 91980
 gtctaatttg atcaaatgt tctttcacag caaagggtc agtaaaagca aggacttctg 92040
 gctctgcttc atccacctgg cttaatatc ccaactcatgt attttgaac gaaccttgat 92100
 tgatgttcct ataaaaact catgaaactg tgtctatgt cctccatggg atttggggat 92160
 gcagtttacc atgccttacc gcaacctgat gtgtggaacc ttcaaactgt ggcttaaac 92220
 aaactcttct ttcctttaa gtgttgact caagtatttt gtcgaagcaa tgtgtagggt 92280
 aactaatacc cttggataga ttaaatcagt ggaaatacac tctctgtcac tggatgagaa 92340
 cgtgtcttta gcaaggtca atggcatctt tcatcctacc cagcacttag gaagcagagg 92400
 caagggaatc tctgagctcc tggcctgcct gatctacata aaggatttca gtccctgtga 92460

cacttactca ataacagtga caggagagaa tttggttccc aggaacttgg agatgggggc 92520
 gggatatttg agaggttggg ggaggatgtt ggacagctgg ctaccatgtg agttccaaat 92580
 ttaggtggac agtgatagag ggggggtattc catgccccct ctacatttcc atatgtgcac 92640
 atatgtgctt atctaaatga gtcattttat tactctttga ttcccatttc ccaatttcct 92700
 tctatcaaga gagtaaagac aaaaaacaaa tccattatit tttttgtgtg taaattcttc 92760
 tgctcatgaa tattctatgt atttttagttc ctaaaaaaca aaacttcatt aaaaattttg 92820
 aaagctgccc ataatttttt tgacatagag gaattcaagt tatacattca attttacatt 92880
 ttgattgcat tttaaagcat gggactactg cagctcaaag cagctgcaaa tctcaaacct 92940
 tcctgcctcc acttcccagg cactgtttac aggcatggag ctccattatt ggatatagaa 93000
 acacacaaaag agaaacatac acacagacat acatacacac atataaaata ggctttgctg 93060
 gaagaaaaata aacaagaaca aaacagtgat tattcagttt ggtcaggccc aagttccaag 93120
 gctatacaca tctgtgacaa gaatttcaga tataaacatg tgaaggaaat tttataggtg 93180
 cacctttttt atttattttt gttagatatt ttctttatat acatttcaaa agctatcccc 93240
 aaagttccct ataccctccc tccacctgc tcccactc acccactccc acttcttggc 93300
 cctggcattt ccctgtactg ggacatataa agtttgcaat accaaggggc ctctctttcc 93360
 agtgatgacc aactaggcca tcttctgcta catatgcagc tagagatatg agctctgggg 93420
 acactggta gctcatattg ttgttccacc tatagggttg cagaccctt cagctccttg 93480
 ggtgttttct ctagcttctc ctttgggggc cctgtgttcc atcttatgac tgtgagcatc 93540
 cacttctgta ttgcccaggc actggcatag cctcgtacaa gacagctata acaggggctc 93600
 ttcagcaaaa ctttccctggc atatgcaata gtgtctgggt ttggtggctg attatgggat 93660
 ggatccctga gtggggtagt cactggatcc tttcgtctta gctccaaact ttgtctctgt 93720
 aactccttct atgggtatit tgttccctat tctaaggagg aatgaagtat ctccctctt 93780
 cttgatitct ttgtgttttg caaatgtat cttgggtgtt ctatgtttct ggactaatat 93840
 ccacttatca gtgagtgc atcaaatgac ttcttttgtg attgggttac ctactgtct 93900
 tagtcagggt ttctattcct gcacaataat catgaccaag aagcacctgg ggaggaaagg 93960
 gtttattcag cttacacttc cacattgctg tttatcacca aaggaagtca ggactggaac 94020
 tcaaacaggt cagaaagcag gagctgatgc agaggccatg gagggatgtt ctttactggc 94080
 ttgcttcccc tggcttgctc agcctgctct cttatagaac caagactacc agcccagaga 94140
 cggtcctact cacaaggggc ctttccccct tgatcattaa ttgagaaaat gcagaaaatc 94200
 aagaatttca cacacaacta tgacaggcat ttcatacaca tacacatatg acaagaattt 94260
 ctctctctct ctctctctct ctctctctct ctctctctct ctctcacaca cacacacaca 94320
 cacacacaca cacacacaca cactcctgtg acaagaatac catacataaa actctggtag 94380
 gaatttcaca tacaacctg tgacaggaat ttcacataca cacatacca cagacatctg 94440
 ttaaatgaat tttaaacaca catgtgacca gaatttcaca cacacacaca cacacacaat 94500
 cacctgatac aggagtttca ctcatacaac tgtgacatga attttatata cacacgtatc 94560
 tgtgaaatga attttacaca ggtacatgtg acaggaattt cacacacaca cctgatataa 94620
 aagtttcaca catatacatg tgacatgaat ttcacataca cgcatatcag tgaaattaat 94680
 tttgcacaca cacatgtgac aggaatttca cacatacaca tacctatgac aagagtttca 94740
 cacacaacac tgcaatagga aatttaacac ccatacaaaa cagtgatatg gattttatac 94800

acacacacac acacatacac atgtaacaaa aaattcacac acaaaactgc aacaggactt 94860
 tcacacacac acaaagctgt gaccagggtt cacacacaca cacacacaca cacacacaca 94920
 cacacacaca catctgtgaa atgaatgcta cacacatgcc tgttaccaga aattcacatg 94980
 cacacacata cacacatacc tgtgatggga atttcacaca cactgtgaca ggaatttcac 95040
 acatatgcac aaactcctat ttcaggagtt tcacacacac acctgtgaca caaatttcac 95100
 acacatacac acacacacac acacacacac acacacacac acacacacac tgtgataggg 95160
 ttgttaataa gtagctagct agatggatag ttgaatgatg ggtgggtggg tgtctgtact 95220
 gatggaaaga taccagagg tgatgaattg acatccagag gtggacatat ggatggaaag 95280
 aggaaggcat gaatactgaa caaatggaag cattggtgaa tggatgggtg tatgaatgga 95340
 tttgtcgtgc atgtactggt agagggtcta atgagtgtat atatgagtgg gtggctggct 95400
 ggctggctga atgagtgagt ggatggatgg gtgtttggga ggattgttaa agttcctttt 95460
 gttctcctga tataactatt gttttaaggt cttattgect ccatctgcta acctaagcct 95520
 agtcttgga gcttctagcc tccatacaat cttatctagg cctagaatct tttcaacatt 95580
 tgagacttgc tgctgaatat gtcaccttt tctagttatt tctgaactcc tgctagctgg 95640
 tcaattcagc agttctggct cagaactctt ttccatgcta actgattcaa tcttgcttct 95700
 cttggcttct cttgaatttc tctacttggc ctcataataa ctttggcaat atgttctata 95760
 cagaagtata tggtccttc tcattctctg actcattctg tcttctctg tgtcttgctt 95820
 ggtctctctc tctctctctg caatctgcct ctgtacaact gtcccagtaa aactgcctcc 95880
 ttctctctct ctccactctc tgcactgctc tcttaagtag cttcccttct tctctctctc 95940
 ttataggata tgttacttcc tcctacaaac taactttacc ttcatgtttt gggattaagg 96000
 gtgtatacca agggcatgtc tatattccag caagggggat taagggtgtg tgctaagggt 96060
 gagccacacc acaactagaa acaggttttt ccagtaaata attcaatctt gggtttccca 96120
 gtgtgatcaa atatctaca acagtgaatg gatagtaaga tgggtggatg gattggtgga 96180
 ttgtgagtag atagatgaat aggtgaatgg atggataggt ggttggatag gtgggtgggt 96240
 gaatgaacag gtcattgtat gtggatgtgt ggatatatga gaggtggat agatagatgg 96300
 atggatgggt gggatggatgg atggatggat ggataggtgg atatatgtgt gagtaaatga 96360
 atgggtgggt ggatgaatgg ataggtggat atattggtgg atgtgtggat tagtggtaga 96420
 tgggtatgtg gacacatgga taaatggatg gatggatgga tggatggatg gatggatatg 96480
 tagatggatg tataaatgga tggataggtg gatggattga tggatgtgta ggtgtcagta 96540
 aatggatgga taaatgtata ggatgatgaa tgaagggtaa acggatgtgt gggatgggtgg 96600
 ataaataggt gtgtgtgtgt gtgtgtatgt gtgtgtgtgt gtgtgtgtgt aggtgtttgg 96660
 atggatgggt gatggatgggt ttagtggatt ggttgattgt gaatatgtga gtgaattgat 96720
 gactagatgg gaatatgaa gtttgaataa atggatggat gggtttatgg atgaatggat 96780
 ggataagtat atgtatggat atatatatgt gtgagtgggt ggatggatga atggatgagt 96840
 gaatgggtga gtggatggat ggatggatgg atggatggat ggatggatgg ataggtggat 96900
 gagttggtag atatgtggat gtgtgagtgg atggatgaat agatggatag tgaatggatg 96960
 gtgtagtggc tattcctggt tgtcaacttg acaatatttg gaatgaacta caatccggaa 97020
 ttggaaggct caccagtac ccttatctgg aggttggag atccttatct ggatcttgggt 97080
 ttgaagatct tgagccatag tggctatgga ttccagaaga ttgaatctcc gagtttaagg 97140

```

aacacaccct taatctgggc tacgcctttc atctgggatt aaaggtgtgg tggaacacac 97200
ctttaatctg ggctccacct tctgctggag acaatataag gacattggaa gaagggagtc 97260
tagctcttgc tcttgctcct ttgcctgctt gctgcgtgag actgagtaac tgctagatcc 97320
ttggacttcc attcacagct gcgactgaac aattgttggg aattcggctg ccgactgtaa 97380
gtcatcaata aattccttta ctatttagag attatccata agttctgtga ctctagagaa 97440
ccctgactaa tacagatgga taagtagatg gattgatgga tggatgtttg agtgggtggg 97500
tgtatgtatg ggtgggtggg tggatggata gaagaatggg tgtactgatg gagaatatgt 97560
tcatcaatgt tgctttgtaa caaccaatt gtaagcttct attcaacaat gtactgcttt 97620
ctttgttccc aaggctatgc cttatctgtg atgttcaaaa tgaattcaca gccagatctt 97680
aacttcccat ggccgactgt gagcaccaag gatcttaaat cactgacacc acattccttg 97740
aaccttgacc ctgaaacatc ctggtatgga tgtgacatca gctcagctgc aatcaggact 97800
atatgagagg gaactgagaa tggtcatttg tagagcagag agacaatctc tacacagccc 97860
acatgaagaa gaaagtggag aaaggggagg cagaaaggaa aagggaagag ggatggactg 97920
aatgaaggga agggaaaaga tcagtaggga gactacctcc agaggtggtt caactacaga 97980
agcacagcac agaagtctct gcttcaaaaa tagaattgtt tgcaaactcg ttctcttttc 98040
tcatttctcc aaaagaaggg aggggctgga atcacacca tggtttaatg ctaaccagga 98100
acaatggagt agatgctgct aaaagtgaag gacctgctac aacttctgag aaactacaaa 98160
gtcacaatca agtaccctaa gcttggcctg gatcacaggg tgcttctaga agtgtgactc 98220
ttctaaaaga ttctacttca tacaaggccg tgacttttca aattcacctt taatttgaag 98280
ggctggtttt atgtatttat cattgtcagt tctttatcca ttacttaat tttttgttgt 98340
gtttatttct ggtttttcaa gacagggttt ctctttgtgt agccctgcct atcttgaac 98400
acactctgta gaacaggctg gcctcccact gaaagatcag cctcccaagt tcttgtctta 98460
caggattaaa ggcatgcacc accactgact ggttatttaa atatttttaa gattttttaa 98520
aattgtatat agttttttcc cataatcact gtgggaggta catgggggtc agattttgga 98580
taacacatta caaatctac cacaggagga tactcccttt gaggaggcag atgttttcta 98640
aagaaaagta tttatttctg tcgcccactg tccagtcaga ctcatthaaa gaggaatcaa 98700
ttgacaagaa aactaactgt gcaggggtct ggccagaaga gggtcacttg gaaggttctg 98760
tgaaaggctg agtcaacaac aggaagtga tctgtgtggt ttgagatagc atctggcctg 98820
gcctcatagc agtgacaaac atttcctcaa aaaagatact gtgagaatga gttaggttga 98880
gtgagaaagc taataccaaa actcacctat tatgatttat tctgtaagag taaacatgtt 98940
tttaataagg aaaaaataaa aaagtgtgtg agaacaaaaa acaaccagc actaactaaa 99000
catatttcct gattttaaca ttcacaattt tggggccagc taggtggctt aggaggttaag 99060
agtgtttgtg accaagcctg ggaatcagag ttcaattctg ttgtcccatc cagaagctga 99120
ctttgatttt tacttttatg tattgttatg gcatgactgt cagaggacag cttcattgcc 99180
atcagctctg tctgtccagc tttccatggc ttctgaaaat tgaattcatg tttccaggct 99240
tgagtatagt cttaggatat ctaatatgga aactttttct tttttttttt cactaaaaaa 99300
gtgaatttag cttgtgacta tgtcctcgca ctttcgagtg tgttgagtgt gtgtgtgtgt 99360
gtgtgtgtgt gtgtgtgtgt gtgtgtacac cttttctcgc tgtatcaaga atctaaataa 99420
ttttggcatt ttctgccacc cactgtaagg atcacaccaa ggtgaggaat ttctctcttt 99480

```

```

ccaatccaag cacacatttc tgcaatttta tcaaaactgt ttatcattat tggactgaag 99540
ttcatcaaac ttcacctcct attccctca tctgagcaga agcaatgtgc atttttcctt 99600
attgtgtttg tttgtttggt tgtttatatt ttggattttc gagacagggt ttctctgtgt 99660
agcactggat agtctcaaac ttgtagacca ggctagcctt gaactcacag agatctacat 99720
gtctctgcct cctgggtggt attttcttta gattctgcaa tattattgta aacacttccc 99780
aggtagggaa ctcaaaactta aaaattcggt tacaatttcc tcataatata cacctatacc 99840
ctcagtagaa tttcatgtag tgttctttgg ggatttgggt ggtttgcttt gttttatttt 99900
tctgtcaaga gacaaggctt caccatgcag ctttggtggt cctagaattt acagaaatcc 99960
ctctgtctca gtttccctag tgctggcctc acaggcatgc aatatgcacc ttttagcaag 100020
tttttaagtg agggctctgta aagtttccca agtttactta gtttatagtc cttgaccctg 100080
gcctgcagcc accaagtagt cacctgaaag aaaagaaaat agaatttgca gctatttttc 100140
atgagaaaacc aaggtggtat ctgcagagat ggagactgag tcatgaaaag gagatagagt 100200
tgccacagag aaggttgctg cccaaggga acttactctg ctgagctcca tgctgtgacc 100260
ctgaaaacta gagtttcaca gatgatctga gactagggga tatgttcgag tgtcttcaag 100320
gattgtccca agtgaatcca tagtaaagca gggataatcc atggatctaa aaggaaacaa 100380
caggtgccca tccagtcatg aaatagttaa tatccagact tgtaaaagca ggaagttcct 100440
agacactaaa cgaatgaatg aatgaatgaa tgaatataat aaaagtatgt atggggctag 100500
agagacagct tggcaattac aagtacaacc tacctttgca gccaacccaa attcagttcc 100560
cagcaccac aaggaggctt ataaattcca caacttcagc atccagatct ccatggtcaa 100620
tgacttctga cttttagaaa acagatccaa cttccagtga cataaactct gaagctttaa 100680
ccttcctggc tgttttgttt tccactagaa cctgtgactg aagccctact acaacacaac 100740
ccccaccata catacatata cacacacaca cacacacaca cacacacaca cacacacacg 100800
taacttgatc cctgactgaa agcaagttct tactttcacc agagtacttg agctccacce 100860
acctcctcgt caatcactta actgaccaca agaaaatcca aatgctttgt tgacaagatg 100920
catctatgga cactacaaca aaccacaaa cccttcttaa acatagtttt taagtctaca 100980
gaagattcgt atctcacctt tccgaggcta tttggagcta ggctatactc actaggtagt 101040
gcttacagct cagtggcaaa aatgcttata gctactagga taagggtgtc aatagctcag 101100
tggatagggt gcttgaagat tagtgagtaa tgtgcttgta gctcagtgtc ttagttagt 101160
ttctattgct gcagtaaaac accaagaagc aagttgtgga ggaaagggtt tattcgtctt 101220
acactttcac actgctgctc atcaccaaaa gaagtcagca ctggaacaca caggcgagga 101280
gcctagaggc aggaactgat gcagaggcca aagaaagatg ctgtgcactg gattgcttcc 101340
tctggtttgc ttagcatgct ttcttataga acccaaggct acctgggccc tccccctctt 101400
gatcactaat tgagaaaaatg ccttacagct ggatctcatg gaggcattgc ctcaactgaa 101460
gtccctttct ctgtgatatc tctagcttgt gtcaagttga cacacaaaac cagctagtat 101520
gctcagtttg tagggtgcat acctagcatg caggagtcga tcagttcagt tctcttagct 101580
tttggggtcc aaggactgaa ctcaggccat tagcatgat gcaagtgcct ttacagacce 101640
agccatcaga cccgatgttt ttaatgttt cagatagcac ccaggtgggt gtactagcac 101700
acatctggaa tcttaagaat cttcagctc acttaagaag ctgaggctga agaactcctg 101760
catttgacat cagcctcact gatgtagctt gtgtttcgat ttcttgctg ttgctgtgac 101820

```

```

aaactccctg accaacagca aaagaacatg acttttattt gaaaacaaga accctctgaa 101880
gctcacttgc aatgtcactg ccaaatatag aaactgaaca aagggtagaa agcagcagca 101940
ttttcccgaa aatcactgat aggggaagaga aacccatcca cccatgagga gaaaaggggc 102000
cactcatgag tcactcagaa tctggaaggg actgaaagaa ccctccctgg ggcctgacaa 102060
ggaagcctca tacatttgtt gctacctaag agtgcctgca ccatcttgta gcacacctgc 102120
tctgtgccat ttgggatccc acccttagat tcaacccaac ctgcaccatc ttagatctga 102180
tccaccctgg gtcactcttg atgtcattca ctctgggcca tcctgggtct aatactctac 102240
caaacaagct cccagtgtc tacctcttga gctagaagaa ctctactcaa tgagtcacaa 102300
atactcaact acaagcactc tactactga gccccatccc tagcccccata tccaaccttt 102360
gactgcccac gtittccttc atttattttt ctgtatttct acctgttagg agcagattcc 102420
ttgccaccat gaatcctttg tgtgtgtgtc gaggcagttt cacttcagtt atcagtgaca 102480
gttggttttt aacaaaccag ctctgcctgt cagagtttga ggtgccata aataatgcac 102540
agggctcatga ccttttttca ggccaaagca catgtgtctt tcaggtgcat gtgcaagtgc 102600
tgtgaccccc cccagctcca ccctctgagg ccctgaagcc atgtgatcag caatcatcaa 102660
gccatgatg tcagcagagc acccaattca agaggcctga gtccacaaga ttgtggggac 102720
taagtgatgg ctatgtggga acaaaacaag actgcagaga gcaaagcatg aaaaaagaga 102780
cccactatgt gatgaggggg aggagaaatc acagtcacag tggagcagcc ctagatactg 102840
agtctgcagc actccctggg tgctctgcct gacatcaccc tgggtttctg gaggatgata 102900
cctgttaggg caatggcaga ccctagggtg agtggtaatg tgcacatgca gaagaaggtg 102960
ggcagaggag cacactggaa caattctggc catcctcctg ccttaggcac atgtatatat 103020
gcttcatgtg ggcttagaga ttcgaaactc gatcctaatt gctagagcac ccattctcat 103080
agagtatctg tctcatcaga agatcaatgt ttgcagagtt gaataaatgc tttttgttgt 103140
tgagatgttt accaaagact gcatggacat gggtttgagg caatagaaat tctttattag 103200
ccagccagag actacatttg ggtacttggg ttccaagtgt accctaagcc tttctcaggg 103260
tgagctttta aaacagaaac tatgttctag gttgacatgt ttaacaaga acaattagcc 103320
agaagtggaa ctacagaaac caaaatgcaa gcttagtaga tttagaaact ttcccagaac 103380
taagggtctt gatggactag tcttttagtt ttggtagggt gcgctgtctt cattttgagt 103440
gttataacct gaatgatact tccatcatgg agtcagctgt ataaagtctg ggggtctact 103500
aaggctctggg atcaggctac agttttgtca tagtgtaacc aaactcaaaa taatagcagg 103560
ctctgtgcat tctgactagt ggagtatcag gtccatagcat gtgtttattg aatgagaaaa 103620
tgtttctaat gtgaaacaat aaaaaaaaaa aataataaat aaagcagcca gcagactttc 103680
ttgttgccaa ggtcagtgt cttgccacct acgggcatca tcggggcaac tggttccgaa 103740
tggatggtcc ccacttcatt cctgaacttg ggccctattg gccctgtgtc ttctaggacc 103800
cagtgcctca aagctaggag cgggtgcagt cagtgagcat gcactgagca gccgggagac 103860
cacattcttt gcattccagg ctcagggaaa caccgcctc accttgagg tggtggctgc 103920
ggctcttgaa gcacccagtt ctcagcactg cctacgagcc caggcctgtt tgaagccgca 103980
taacaagtcc ctggaaaccc ggtctactca ggagccccag ggctcaggat cagcaggtgc 104040
tgcagggcca ctgagagccc gggttttcgg gagggcgcca ctcggggact acagaacacc 104100
aggagttaa tcccctgaga ttaaggagaa accgagaaac cctgcccac ccgactcct 104160

```

```

tctggtgcct ttaccactg ctaaggctct gctggtaaat atccaagcag cagccggaag 104220
ttcctgcacc tcttcttcc cgcttcctgc caagggggag gaaccaggca tgcggtgtgt 104280
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgagaga gagagagaga 104340
gagagagaga gagacctatg gtgtgcgtgc gtgtgtgtgt gtcaagctgg accccgtggc 104400
cccagtgcag cccctccat tacttttact ttggtgcagg tacatcccat gggcgtgggc 104460
cccgcgggtg agtaacaata ggcagggttg ggccaacgcc gggctcctcc ccgtcggtta 104520
cgcaacaagg cggagcgaga tgaaggctct tccccctgc gtcattccaga caccctactc 104580
ccccgccgtc acaagccggt cgccgccag ccggttccg ccgggaatga agagggttg 104640
ggttggctcc ggccccgcgg accccacgcg cgtccgtgga gccctcgggc gacttccatg 104700
agccccctcc atcgctctga gaccgctga gtttcttcc attgtcctct cggccgcggg 104760
ctccggaaca cccgtgcgag ccactgctg atgcacagac tgccattgcg ccgtgtcac 104820
accgtgcgtc ccccgcccc a tggagccgc cgctggtgcc gcggcgaccg taaaagatcc 104880
agaccatgac cccgtgaaga ccaaggtctc ggcccccgc gcggaccca aaccaggac 104940
atcgtcacag aaggcggggc actcgttaca agattgggac accatagcca ccgtgggtga 105000
gtgagaactg agtaagaact tatgtgtggg gacgcggctt gggagcgacc ctacagattc 105060
tgtctccac actctcatta ctgggcctcc ggaaacgggg cagccccacg tcacagagct 105120
ttcaggaggg tgacttcacc ttagggactc ggaggtcccc tactggggtg ctagccaccc 105180
ttgggacacc acgcccggcc tccctggcgc ttgcgcaccc gtcattgcc aggatttctc 105240
gggatcgcat ccagcctccg cactgtagac ccctggcggg actcgaaggg acgcgtgacc 105300
cccaagggac ccttcgggga cgttttccca gcatctattg tgtgcctggg tctcgttttt 105360
tcttttagtg ctcaaaactg gtaccctcgt gacccgaaa gttgctaggg aagccggtag 105420
atccccaac gtgccggagt actggggagg gaggctagga tcttgcaat catgggcgcc 105480
agcttctcaa gtctgaagcc caggagtccc gggtcttca gcaaacttgg tcaactaggac 105540
agttgtgcct ggtgtgttga tgattaggaa agtgttccgg gaggatggag gaaggacaga 105600
gggagggatt ggcgtcctcc gatcagctgt gagcagagat tctagaggct tctgtgttca 105660
ccctggtgtg gaagtcaagt cagggttcag gaccaggatg aggggcaata aacactttct 105720
cagctgagca ggtgagatgt taaaaaaaa atgtgtgtgg gtaaaagggc ttgcaagttt 105780
gatcctgggt ccctcttga ggctggtga cactcgtgc atcttggtt ttgattgact 105840
tttgagggaa actgagctgc ttgaatgaat gtcgtttatt tatgtatcat gttgtattct 105900
aggctggcct ttccatcact gttagccag gatgacctta aactacacat tctccgcctc 105960
ccctctttc tgagtgttg gaaccgagcc cactccacc acagattggg tatggggtgc 106020
tggaatggg gactgcctc tatatgtttg agacattgac ctgaaagtca ctgcatagcc 106080
taagctgact ggagatgcca gacaatctc ctgtcttagc tttcccagtg ctgagacttc 106140
agggactcat tcacaggcac ttggcacctc aactggttct ccacctttt cttctctct 106200
gtcttccttg ccctctccct ccacgcccc tctcggcacc ttagctggtt cttctctct 106260
tccttcttt tttcttctt tcttctctt cttttttgt gtttgtttgt ttgtttgtct 106320
gtttgtttgt ttttgaaaac aaggactctc tccatagctc tgggtcacta actcctagag 106380
atgtgcctgc ctctgcctcc caaaatgta ggattaaata tctgtgccac cacacctggc 106440
tcttttgta attttaaaat ttacttattt actgtgtgaa cgaggggagg gggcagcaca 106500

```

```

agtgtgggggt caaggttcaa cttttagaag tctgttggtt tgccaagtaa gtccatggta 106560
tcaaaactgaa gtccttagac ttggcaacaa gcctattgggt ctgctgagcc ctcttactgc 106620
cccactgtgt ccctagaata gacctcatgg gacatcttgg gagcgtcctt gtcctgaagt 106680
cctccaactt cttcaccttt tccttaccat gaccctgttc cctcggaatc ttttagaagg 106740
acctggggcac acacatcagc ctccccctc cctactcat ctttcatat atatacacac 106800
ataactgagc tataagcgct ctcttcaactg agccctcaca taaatttaga tgggtgtctat 106860
gaccaacgga gttttgtggg tgtttgagac agggcctcca tgtgtagctc tggctgtcca 106920
ggtacttgct gtgtagacca ggtcttgaac tgcaggtgcc taacaagtac ataccacca 106980
aattaacatg gagcacctcc gtactctctc tctctctctc tctctctctc tctctctcac 107040
acacacacac acacacatac acatactcac acacaaagac aactcctgcg tccctagtcc 107100
ccagcacaca ctgcgttctc caggaaataa gtgttgatgc ttttgtctct gacctaaagc 107160
tcatttctcc attcattagg agactcaagt agagaacatt tcaggctggg gatgtgattc 107220
agtggataca gtgtttatag cttagttagg ataattgtta tagcttagtt gggatgggga 107280
gactgcttgt gattacagta catgtgactc agtagacaga gtatttatag ctcaagtgggt 107340
agagtgcctg tagctcagta caatgcttgc attcagtggg tagaattaag tgggtagagt 107400
gcctgtagct cagtggacag agtgcttgta attcagtga tctcatatct aaatttgctg 107460
aacaggcccc ctctgtccag caggctaat gtagtcttgt ttcctgtac tcagctgtga 107520
tctcttgagt cctgtgcctc agtttacttt tcagtgttc catggcctgc tgccttatgg 107580
aaagccagta ctaaactctc agtcttaca gggcagaaga tctccagtct gtctggatgg 107640
gaacatcctc cttagatgaa gagtcacatg agcagctgtc agatgctctg acagatcact 107700
acaggctagt gtcttttaca ctagagagga attactgagg gtccctgtggg ggatggggga 107760
gttggcatct gagatacatt gaggccatct ggtagtccat agtgacatta atacaaattt 107820
agaactatct aggagacact tgaagtccag atcattgagg aagaagaatc ctgtgcatgg 107880
gtggggaccc agagtgccta aaagggaat caattacca ttaatttgc caagtcacca 107940
gcgttcatcc ctattgatgt aaggagagca actatgtcct gcttttgcct ccatgaagtc 108000
atctccccctg gaaggccac tctcaccacc atacaacct agtcattagt aatggtgtag 108060
gctgtgggag ttgcattaac attcatgaat atgcagatat acactctgta tatacacacc 108120
cacattgtac aaggccagcc tctgcctctt tctagaccag tccattgtg cagaggagag 108180
attgtaataca cccatagtac acttggetgt tcttttgc aaagtcctaaa ggtggaatgc 108240
tgtgcacaat gcctcccacc atgtcatcac ttcctgagt gctaccttct aattcattgt 108300
ggtttatgag atggggcttc actgtcattc aaaccaggca tccactccaa ccgaaactaa 108360
aggatcatgg gttggaggga tatgaccaca ggatgtctgg aacaccaga agcaggacat 108420
ggttgggagg gtcttctttg aggctgcag gagatgggga gtagggggct gatggacctg 108480
tacctcatat ttccaccctt ggacaaagga taacaggtga gcctaccac tttgtgccac 108540
cttggatgtc ttctgttcta tgtcatcctg actgaaccta tctgggcat cttgaacccc 108600
accacccctg agccatctta aattccacct aacctgtgcc attttgcctt gaagctatgt 108660
atgetatctt gaatagcacg taacctttgc catttgaatg ccaccaccc tggaccttct 108720
taactaaacc atctagaaac ccatccaagg cagccatctt gaattgtc caatgtctga 108780
atattcttctc aggtttcttt tcttgactgt tttctcctga tagtataaag aacctgtcct 108840

```

```

gtcctccttc tcaacccta aacctgtct gtgtatctgt ccatttctg ctcagccctt 108900
agcatcctca tctgaatca ccaaggtga taaatcacac tctctctctc tctctctctc 108960
tctctctctc tctctctctc tccctccctc cctccctccc tccctccctc ccccatgccc 109020
cctgccccctg cccctctcc cctctccctc ctccctctcc ctctccctct cctctccctt 109080
ctctctctcc ctctgaaagg cacttgtcct gagccactgg tggtcctaga gtgagtttca 109140
ggatgatttt cctacaagga catcaccaa aaggagagca ggaagtcaca gcttcagtca 109200
cgcaggccaa agcttcttgc ttcaatctcg tttagagcct ggatgctcta gtcttagtct 109260
aaccacacac taaggacagc accttcattc tcttgaggac ttatgcatcc ttaggcgttc 109320
tctgtattga cattttcatt taattttatt tttgaagtgc tgggtgttga atatagagcc 109380
tcactcacat taagaaaate tctagtctc tcttaagtct cctctgtcct ccttttttct 109440
ttccagagtc tcccagagta gctcaagctt tcttggaact cactgtgtat tccaggctgc 109500
cctcaaaccg ctgttaatcc ttctgctta ctttagaagt gctaggatta aagcctacce 109560
tactaggctg aatttatgca aagcttgga tttgtctctg ggcttcatgc atactacact 109620
taaatactct acttttagtt ttatttccta tctgaaataa ccaccatgcc atcacacttc 109680
ctttatttta aaaagatttc tccctgagge tgagggtgga actcagtgat acagagcttg 109740
taattctgtt gatagggtgc ttatggetta gtagattggc tcttctgtg ggaggccatc 109800
caagctaatt acacactgct gtacctgata cttggctcct tcaggaatta tctgggttgt 109860
gtttccagtc cactcttctg tttatatatt ctttccaag gctagggtta gaatgtgagg 109920
ggaatagtaa taataatagc cacagtaata acccacttat tattattata tctattattt 109980
gggggggttg actggaaccc agtgcctcat gcatgctagg taaccagcca ctgagctgct 110040
acacacagag cccaagagca aacttgtag tagtagtate atcaattttt tttgtttct 110100
tacatttatt ttattgcata ttgttagtaa atattccatt taatacaatt atgttgtcaa 110160
aataaagcaa gaaatagtgc tatgactcat tgttgacata taccacaaat gataacataa 110220
aactccagta taagagaaac acacacacaa tatatatata tatatatata tatatgtata 110280
tccagtgttc taattttatg tacagtttta agtgggggta aattttaaac atttctattt 110340
tttccaattt ttttattgga ttgttattgc tcttattgtt gctgtgtgag gtgctgggaa 110400
tgcaaccaag gaactcattt atgccagtcc tgagttccag cgctgagttg catccctagc 110460
ccatccttcc tgctctata tcaaatgctg tattgacctt ggacaaaaat cacaatttcc 110520
caatatgatg gggaaaagga aaggacctgc atctatcttc acagcctgct gcaattgttc 110580
ctgcttgtgc atgttgatt ttgaaacca gttctgggta tctgggcgac ttccatgtaa 110640
catcttcctc agctacccca ggagccttgt taccacata aaagtttaca tttcctctc 110700
accatgtcag acacagaaaa ttatgtctga aaggttacag gtgttcattg atggaacact 110760
tgactaccat ttgtagagca tgttgttaga ttagatcttc ctctgaggta gtcatttggg 110820
gtttttgttg ttgtgtttg tttgtcttat tggcaaagge attcatcctt gtggaaggca 110880
accttggaat ctataagggc tgtaaagtaa tttgcaatga atttaggtgg tgttgtttgt 110940
taccttgatg acctgtgacc tctgagtcac cttataggtc aagggactct gctgtagtga 111000
ctgttgtaaa tggctggggg atgagcatca aagatggagt gattttgtat cacataggga 111060
tgctgggaca ttgactggga taggcatata caacatacat ttgagtgaat gtaggttgtg 111120
ttgatggctt acaaccaagg gattgggggt ggaggaggag gagagacaag caacttaggt 111180

```

ttgggtccaa tgacaacaca attctttctt acagactttg aatattggtg tggaatgtgt 111240
attagctagc ttcccatgtc agtgacaaga tctctgacat tataaaatta taaagaagaa 111300
tgatttgtgg tggcttgtgc tgtcaggcat ccatccatgg ctctgttggg ttggacctgt 111360
ggagatttag agcatcatgg gagcttgtag tagaacagag ctgcttacca cgtagtggcc 111420
agtacacata gaaaagagaa gatgagtccc agtgtctcct tcaatgtcat gcccccaatg 111480
agctaagttt ctcccactag gcagtaaata gcaccttacc ctgagacttt ctggtccttt 111540
tgcttgactt tgttctgaca gcttctggca gttggcactc tgctgtactg ttcttttcca 111600
cagtgttagg tttctctctc agcctgtgct ctgctctgtg taatcaacac caccagctgt 111660
ttctgcaccc acaagtctca ggcacaagtg tgaaggaaac aagtcggtag ccatctgata 111720
cagaagtcac cctgtggact gcgcacgcga gtacagctgt cacaggtctt cttcacctac 111780
tgtactttga acacaaaggt gacatgtgat ccaccaatca gaagcacagg caagggttcc 111840
agtgtcaaga cccttgcttt tctcattttg ctgtgacaaa atgcctgata ataggaattt 111900
aaggggagag gggattattc tgactcagac tgctgtggtt ccatcatgga ggcaggagca 111960
aagagaagga atgctggggc tcagcttact ttctggatcc aggaccccag caaagggatg 112020
gtgatgcca tattcagggt aggatttcct acatcagtga actagatgtt ctggggtagc 112080
ttggagcaaa ctgaggttat ttttaagcatt ttcagcttga ttatcccggt cctcattgaa 112140
atgtctataa attctcacc acactttcta tccatctgat ccactgtagg ccagtcttgg 112200
cttccactca ggctatgact ctgtgtccct cctccattcc tatgtattct gtggcagggtg 112260
tctctgact gatagacatc accttttctt taaagaacaa aacaaaacaa aaaaccaaca 112320
aacccccaaa atccctaagc acccaagacc aattttatat cccaattaat tcattgtaag 112380
cttagatagc agaagtaaaa gaatgttttt tgaggctggg catgacagag gatgcctgtt 112440
gtccctttta aataacttta gtactaaaca tggttttttt gtggttattg ggctgttcgg 112500
cctgtgtct agctgtgggt gtgtccttct tgatcctgca tctggatcta gcttgctgtg 112560
gggagcattc tgtatttttt ccccttttta ttggatattt tctttatgta tgtttcaaac 112620
gttatccctt ttcctgggtc cccctcctgc aaaacccctg tcccatttcc cccttctct 112680
gattctgtga ggggtgttct ccacccaaac acccacctta ccgccttcac actccctata 112740
ctggggcacc tagccttcac aggaccaagg acctctctc ccattgatat ctgacaaggc 112800
catcctctgc tacatatgca gctagagcca tgagtcctc catgcatact ctttggttgg 112860
tagtttagtc cctgggagct caggcagtg aggtctctgg ttggttgata ttgttgttct 112920
tcctgtgagg ttgcaaacc ctttagctcc ttcagtcctt tctetaactc ctccattgga 112980
gaccttttgc tcagtctaatt ggttggtttt gagcatecgc ctctgtattt gtcaggttct 113040
ggcagggcct ctcaggagac agctatatca agtccttcc agcaagcact tcttgtcatc 113100
ctcaatagta tctgggtttg gtgactgtat atgggatgga tccccagggtg gggcagctctg 113160
ctccacactt tgtctccata tttgttctgt gagtattttg tttccccttc taagaaggac 113220
cgaagcatcc acactttggt cttccttctt cttgagcttc atgtgctctg tgaactataa 113280
cttgggtatt ccgagctttt gggctaatat tcaattatca gtgagtgcac attttttaac 113340
ggtgagaaaa gaatgaaatt gtatgagggt tgcatttttt ttggagtaca tcataagatg 113400
tccttttcta catcataaga cagaaagcaa ctgtgtttta aggctgggat ggggagagag 113460
gtgggggatg gatgaaggaa tgggggaatg gatgttggtg cgtgagggtg gatgagttag 113520

tatatagatt gaaatggaag agaaagagta agaggaaaag aggacaagat ggatatggag 113580
 ctagaagaga aaaggaacac aggggggcata gggagagata cagatggagg aagatgaaga 113640
 ataattagga ggaaaatagg gaagagatga tgaaagggca gatgaggcag aaagttcagt 113700
 ggaggaaaaa aaggaggagg agcagagaga ttcagaaaga gaagaagcag gaagtcttgg 113760
 aagaagagga ggggaggggg taggagacaa tagaggcaga tagaggtgga agaggaaggc 113820
 agacagagag agcaaggatt caaagttccc caccaggagt caccaagtcc agcatttcag 113880
 ctcttcccat ggctgtgttt caatctccaa tgcacatagc aggcaattat ttgttttagg 113940
 ttttagtcat tattattact gtgcatatgt gtggtttagt gcaatagcat gcttgtggac 114000
 agacatcaca ggaaactttg ttgagtgtact gtccattcat tccccaaagc aagctcttta 114060
 cccctcagagc catctccctg gccccttgat tgacagttgt gtgtgaaaaa atatctatac 114120
 agagctcaag tgctcatcta agtttctttt cttgtattta tctttaaggc cccagattgg 114180
 catgatgtcc attcctcagg tatgtttcct tttcctgate cttgactgaa tgcattgtct 114240
 tcctcaggca ctgggacctt tggccgtgta aacctggtga aggagaagac aggcaggcaa 114300
 tactgtgcct tgaagattat gagtatccca gatgtcatcc gcctgaaaca ggaacagcat 114360
 gtgcagaatg agaaagcagt cctgaaggaa ataaaccatc ccttctcat taaactgtga 114420
 gttcctggct ccttcctttc cacctcctca cctccctaac gttattctcc caagagtgcg 114480
 atgtaggggt gctgccaggg ctgtagctca gtggatagag tgcttttagc tcagtggata 114540
 gagtgtttgc agctcaattg gtagagtgtc tgcaactcag ctaatacagt gcttgtagct 114600
 tagagggaag agtacttata tatagctcac cttatggaac gcttgcagct caattgttag 114660
 agtgcttata gctcagtggg taaagtgtc gcagctcagc taatacagtg tgtgagtagc 114720
 ttagtgggaa gagtgtgtgc agagcagtga taagagagta tgtagctcag tggatagagt 114780
 gcttgtagct cagtgggtgt aggtgggaga tactatccag attttgtctt gatttattat 114840
 tgttgtgtgac catgcacatg ggcacagtac cacacaaagg ccacaggaga gcactatatt 114900
 tccttggaac tttagttaca ggtggttgtg cactgctcaa ttgggtgctt ggaatccaat 114960
 ttacatcttt aagagcagca agtgttctta aattctggtc catacctcaa cccttaactt 115020
 aggagttttt ataacaacta ctttttgtgt gacctgacca ggagccatga ttctaacagt 115080
 ctcttcaatg tttatgcccc aacattgctt atgttatgta aaagtccaag acctgggtct 115140
 tttattacgg ctctagtcag aggtgacaga gtaagetaat tattcatttg atattcatat 115200
 aaagcaactg gtgatttttt taacaatatt aaatccctct ttgaatttga gaaatataga 115260
 tgtatataaa aataacttata tacatatata gtatgtgaag gtccatatgg gcgtatgcat 115320
 gtggagatct gagaacatct gctgtcattc ctttaattta agtgtttgag acaaggcttc 115380
 ctgatagccc aggcacacaga aagtcagggt agcttcagggt agggtaaatt acccagcatg 115440
 tcgttattga aacaccactg cacaattgtc atgctattct agagtattct atgttgtcag 115500
 aacattacat aagtgcacta tagtcaaaat tcattagata gtgtagaaac tagagcatcg 115560
 ggctgaagga gaaggatcag gttgagtact tgttcctttt gcagagcacc tgggtttggg 115620
 tcccagcact cacagcgcac agtcatctgt aattctaatt tggggacaca tacacacaaa 115680
 taaatatgta aataagatac aaataaatat gtatttttta ttttgaaac acagggcatt 115740
 taaattctac acagacttca atattagcca aaatatgttc ctgttagcca cagcaccaac 115800
 tgaggctcat cgctctgtga gtgtttgtgt cccagtctcc tctccttatg aggaccagct 115860

cctgttaggt catgtctacc ccaaagacct cattctaccc cagtttcccc atttaaagat 115920
ccatctccac acagctctgt cccaaggtcc taggtatgca gacatttaac acaggaattc 115980
tggcagaaag aatcctgagt gcttagctaa gtcagactgg acaattctac ccaccactgt 116040
gtaattacac atgccttaaa ggaatctttt cttttttgct ttctttatct tgcatttaca 116100
ggattcagca ggtgggttaa aaactatgtc aaagtgaact agtgctatag agatttgcac 116160
ttggcctgca tgctgtattc acagcatggc agagcacact gtatatctgt ccagctgtag 116220
gaacacaaact tagcaggctt ttgaacttca aaggatgata tgcattgctac ttaaggcctt 116280
taaagtctta tactctgtcc tttaaactgtg aacacttgtg aggtcatcca tccaacttgt 116340
gcatgttgcc tatgaacatg gagtagtctg tcttgaggaa acatgggatg ccagcatag 116400
tgggaaaggc ttcaaacggc tgatgaaaat cacagcttac attgctgcag aaatctggac 116460
ttattttaca atggttttaa caagagtcag tattaggctc agcctactgt acatggcact 116520
attcccagga cagggaaaaa tgtgtgataa gtttcaacta tcaattggca caacccaaaa 116580
tccccggga atggtttcac tgagggattt cccacatcag tccagcttgt gaatatgtct 116640
gtgagagtgt tctaattgat gattgacata ggactccacc caccatggac aagatgaggg 116700
tgtagtgtca atttgacaca gaaagtttgt gctctacatg cataccatga cccttcatct 116760
gtgctttcat tcctttatgt cagaggtatt tgcacataga ggtataaca gaaatgaagt 116820
cttgactggg ctgcactgtg cactcttgaa aggtccagt cctttgggtg ccctactgtg 116880
ggtgctgaga gaagaaacct ctcatcctag gggcttataa tcagagtgt ctttagacat 116940
tgctttgtac ccctggagag caatgatgtt tctggatgaa aaccttgttg tagttgggtg 117000
ggaattactt gcatgatata tgatagatag atagatagat agattagata gatagataga 117060
tagatagata gatagataga tggatggatg gatggatgga tggatggatg gatagatagt 117120
atatgtagat gatagcagat agatgtacgt agataacata gatgatagat catgaatgga 117180
aggacaatag atggtagaaa ggtgatagat ggttggatag ataggttaaa tagctagata 117240
atagatgact gactgataga taatgataac atacatacat acatacatag tattgacggt 117300
aatattgaag gtctcaccta gggcaccatc tcttagcata tactctcctt gtgaattcca 117360
ccctcagggt gtcaccacag ttttagcatc ctctgatatt ctaatatcaa cctgcatcta 117420
cagtcagct aagcacaacc ttatgatctg ggttgactga catcagatat cttatcaaac 117480
atcttgatta ctgtctgggt agctttgatt ctgttgatg taaacaatga ctaagaggga 117540
ctgagggtag gaaaggctta acttggttac ttggtttca ctttctgtc acaggccatc 117600
tgagaggaaa gtcagagcag gaaccagaag cataaagctt tcatccagcc caagaaccca 117660
gtccatgatg ggtggggctt cctatgtcaa ttatcaaaca ggacactccc cacagacacc 117720
cacaggccaa tctaattgtg gaaatgactc actgagaccc tacctaggtg acttcaagct 117780
gtgttagagc tgacagcaca tcttccccct gctagggact ggcgccacc tccatggaga 117840
tgatcgtcat acttcaatca actaatcagc tgaataaaga catccccca tagacatgcc 117900
cacaggctag gatgatatgg gaaattcttc actgagtacc ttcccaagt actctgggtc 117960
ataaagggtg tggttaaagc taaccaggac acattacat gtttgcatt gtttatgtgt 118020
ttatcttgat atctgtatct atattttgat atttgcata atgcacctgt tagtgtctgt 118080
gtataccagt atattaatgg gaacatctac ctctgtatat ctggagtctg tacacatatc 118140
ttgtcatcag tgtctgtcaa tcaccaacat acatccatcc atgagtatcc acttctgagc 118200

```

acccaactta ttacccatcg tgcactctgt tgtgtctcgc aggcctttgga caggccatga 118260
caaccgcttc ctatacatgt tgatggagtt cgtgcctggt ggtgagctct tcacctacct 118320
gcgtaatcgt ggccgattct cctcagttgc ttcagtcttc tacgccacag agattgtgtg 118380
tgccatagaa tatctacact caaaggaaat cgtatacagg gacctgaagc ctgaaaacat 118440
ccttctagac aggggaaggac atattaaact gacagacttc ggcttcgcca agaaactggt 118500
ggataggtga gtgggaacag ccattggctc atcagagggt aattaaaaaa taaaggtttg 118560
attttaatgg gtggacagaa aggggcagaa gatgtatggt gggctctggt gtgatgcact 118620
tctccctcca tctatttaga tgggtctccc atttttcccc cattggtata gtaataaaac 118680
catcttttaa aagcagatta aggaagaaca gggataaagg tgccaacagg agcatgtgta 118740
gaggacagct gtttacattg tagccacata taggaagagc aagcaggaag tagagcaggg 118800
ttattgtctt agttagggtt ttactgatat gaacagatac catgaacaag gcaagtctta 118860
taaggacaac atttaattgg ggetggetta ctggttcaga ggttcagtcc attatcatca 118920
gggcaggagc atggcagcat acatgcaggc atggtgcagg aggaactgaa aagttctaca 118980
tgtttggtcg aaggcttctg gaagactggc tttaggacat ctaggatgag agtctcaaag 119040
cccaatacca gagtggcaca cctactccag tagtgccect ccctgggcca agcatataca 119100
aaccatcaca ttctactccc tggcccccat aggccttggtc aaacatgagt catccacggg 119160
ggccatgcct aaacatagca tattaaaaaa atacatttag tccaacttcc aagtccccac 119220
agtctatagc agtctcaata atgctaaaag tccaaagttc aaagtctcat ctgagattca 119280
cccaatcaat taactgtaat ccccaaatca aggcaggaaa ccagctgggc aaactcaaac 119340
tctgaattcc catgtctgat gtcaaaggag tcttcagatc tccagctcct ttttcatcat 119400
tgttgactgt aacaaatttc ttgacctggg ctggttcac tcccttttag caactttcct 119460
caacatgtat cccatgacct tggcatcttt aacatcttgg ggtctccaag tcaacttcag 119520
cttcacagct tcttgttcca gtgtctggga tctacacatg atcttctggg ctctctccaa 119580
ggacttgcac tgccacaggt ctttcattcc cgctgcaaca ggaacttcat ggacaccaag 119640
tcgggttcac acaatgactt ctttacttgt ggctttttcc tttacagctc tcttccccag 119700
cagcttcttc ttagggcaag ggctaaacta caactcctat tacaatagct tctcttactc 119760
ctacttctac tcacagcaag ggctaaacta tattcaaacc gactcacctc cttctagctc 119820
caccacacct catccaatca gaattcacac acgctctagg catgagctca gatcgttcac 119880
agataggctg acaggctcctg atcacaaggg atagtctagc ctggcaggca gccacgcat 119940
gcagcctcac tgcacatgct cgggcaaggc agtaaacac ttggcccatg cagccacatc 120000
tgcttcccg cgtcgcatcac ttcttcaact ctgcecteta tagcactata gtctctgggt 120060
gactccactc cactgtgct gccattcttg gtactgacat cttaaatatg ctggcatctt 120120
ccacagcaac taggcttcac caatagctc tcatagctc tcttcatggt gccaggctc 120180
aactttgcat ggccccctca gtcccaggcc atcaactata actgagactg caccttcacc 120240
aatggctccc catggcctct cacagtgeta agcctcagct gctctccatg gccccttcat 120300
accttcaaaa ccagtaccac ttgggtgatt cttatgcatt atcaagtcca gctgcaacat 120360
gacatacaac ctcggctatc tctggaacac agcttctttg tgctttcaga aaatacttct 120420
cagaagattt cacttcaatg atgctggtct taatcactgc taatatctta gctccagcta 120480
accagcaaca attgttcctg tagtcccttt tattcttgac tctgaagcta gagccacatg 120540

```

gttgaaactg ccaaattctg cagcttgcta gtgccggaac attctgceca cttattctat 120600
tagcagcttt ctattttcca actccctcaa ggcttggctg tccttgaact tgcactgtag 120660
attgaccttg aactcagaga tctgcatggc tctgtctcct gaatgcccct ccagattgtg 120720
agcagaagag aaaattgttc tgccatcaag atggttgaat atgttccaga aaattccaat 120780
attgtatgtg tgaatgtttt cataattgca tatagataga tatatagatt acttatatca 120840
tcatataatt tataatatcta tataatccta ccattcctgt acttaagctt ttcttcacct 120900
agaacttgct ctgtaccagg ctggccttga acttagaact gcttgacttt ttctcctggg 120960
attaaaagta tgtaccagca tgccctgggc taagcttttc atagccactg tttctcaaga 121020
tccagatcaa aagcctgtgt cttctagcct caagatctgg atcacaagtg tacccttcat 121080
ttctagattg tagtttatte cagattaaaa gtccacacta ttcccttgttt aactgcaaac 121140
acaagcagta ggttttagcta ggtgggttct tgcagtgaga ttaccactcc ctgaatgtct 121200
ttatctcctt gaacaccgga ttcagctcca ttcaacttcc tggagtcctt ttataacttg 121260
gaccatacat tttatatattt tccttttctca gcttgtttct cttgttcaaa acacccttcc 121320
tgagacttaa tcagagaaca aagtttctgt tgggcttttt gagacttctt ttgtcaatgc 121380
aattaatata aatctcttta cgttaacctc aggtagacgc ttcaggcaag ggcaaaaagc 121440
agccccattc ttcacaaaaa tatcacaagt ctctcagcca catattaaaa ttgttctcct 121500
ctgaaatctc tataaccagg cttccacagt tcaaatactc cacagcaata acatcttcca 121560
tattcctacc aggatggccc attgagcccc acataaagca ttccagtgtt ttccaaatac 121620
aaagtcccca aatccacatt cttccaaacg aaggcatggt cagacctatc acagtaatat 121680
gccagtcctt gataccaact tctgtcttat tactgtctata aacagaccaa ggcaactctt 121740
ttaaaaacat ttattggggc tggcttacac gatcagaggt tcagtacatt atcaaggtgg 121800
aagcatgaca gcatctaggc aggcattggt caggcagagc tgaaagtctt acctcttcat 121860
ctgaaggctg ctagaagact ggctttcgga catccaggat gagggctctca aagcctatgt 121920
ccacagtgac acacctactc aaacaagggc acaaatactc cagcatttcc actccctggg 121980
ccaagcacat atagaccatc acatttaaaa aaaaaaacct tgagccccac tgctactgac 122040
atactttctc ctgtgaggct ccactttacc taaagcttat ccagaacttt cccaaacaga 122100
gctgcctgtt ggaccaagtg ttaaaatacc tgagcctgtg ggggacagcc cacacctagt 122160
gtacagctat gggagtggag aggccctcc agattgtgag cagaagagaa aattgttctg 122220
ccatcaagat ggttgaatat gttccagaaa attccaatat tgtgtgtgtg aatgttttca 122280
taattgcata tagatagata tatagattac ttatatcatc atataattta tatatctata 122340
tacatttata tataactata ttatatatat ttgtatatit tacacacagt aatatgctca 122400
gggatactat agctggatca catggcagtt caattttttt agtgttgtat ttttccccat 122460
aagatacatt tattttatgt ctctatggtg tgctatatg catgtcatac ccacagaggc 122520
cataagaggg catcagatac cctagacctg gagttacagg tgaatgtgtg cagtcttatg 122580
ggtactaggt gttgaacca ggttctctgc aagggcagcc agcaatctta aagctaacat 122640
gcctctccag cctctgtctt agagttttct atttatagaa ctcagtcctt agggctcttt 122700
gcccagggtt ccttccccta ttcatagcta tggaagttct ttactgataa tgaagaagat 122760
ggtgtcatgt tcctgttaac ccatagccgg ggtagggggg gaaaggctca atattgaggg 122820
aatcagatac tttccagcct caaagggtgt ccatgctgtg tacagattct ctatgatccc 122880

```

agtattgctg tgggtgtgcta agtaccctta accagccagc cagccattgg tgcattttgt 122940
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaattgtgtg cagaaagggtt caaagctata 123000
ggaacaagcc agaactagaa aattccacag cctgaggcat gcaggcctcc agcctggggc 123060
agacacaaaa agactcagct ttcagtgggg taagcagagc tgcctccggt agagttacct 123120
gtgacctcat cagctcatta gctctatctg ccctgatctt gttctgagac aaggctacaa 123180
ggatcaaaat ctgagttatt gggcccaggg gcaaatggaa tgttgggagc ctgtgatgga 123240
ctgacttcta gttgatttcc attacggaga gaagagagga ggcagagggt gtatgtgcag 123300
cccaggctgt catagcactc actagggagc caaggatgac cttgaactga tccctcctat 123360
ctggacctct ggctgtctag tatgacaagt aagcatctcc acatcttgtt tatgctgggg 123420
ttgggatctg ggctcagtgc ctacaaggca agcactctgc ccattgagct acaagcattc 123480
tgttcctggt cctaccctat agttctatcc cttctgagtt ggatcagttc tttacaggtt 123540
cttgactcga atcccccttct atctgttccc tgtgtgttac tgctcagaag ctcttgagtt 123600
ttggggccctc atctctgtca gttccttcct gagccctaga atccttatta ggaagtcttc 123660
ctgatatgtc cgtctgtggg tatcagggtt ggagcaaaat ggatggaact gagcaatgga 123720
taaattcaag gaaacatgta ggcttgaaat tgtcttaata gaatcagtta tttcttcttt 123780
ctcttctaata tcatactttt gccccctttc tttttaattg cacagtcttg ccatacagcc 123840
caggcacccc caaatgtcat tatccccctt cctgagtctt ctgcatagtt agattgccag 123900
tgggagcccc agactgagca tagaattttc cttttaaaaa cttacttta ttattttatg 123960
tgtgtgactc ttgtctgcat gtctattatg tctgtaagtc tatgtaacac atgcattcct 124020
ggtgccccca gaggtcacia gaggccatca ggtcctcctg aaactggagt tagaggatgat 124080
tttatcacca ctatgtggat gcttagaatc aaactcaggt tcccacaaga acaagtgtct 124140
ttattcactg agccatctct tgatcccact ttaaaaaata attacattta tttatcttgg 124200
atgggggaga gtacagttca gaggtcaact ttcagaagtc agtggttctgt taccatgagg 124260
gtcccaggaa ttgaactcgg gttgtcaagc ttgacacaat tgtttgacct gctgagaatc 124320
tctgcttcaa gcatgcttag gcctctctca actttaccat ggtcctagct tcaggacatt 124380
ttgatcatat gtaaacaact ctcctcattt gtgcctcatg accctgtggt atgcctctct 124440
ggatcttcct agcctacata ctttacacac acagcatcat tacaatattt tttttttatt 124500
ttttgttcca gcttatgtaa tggcattgtc tatctatgag gtaccactgt caaacttact 124560
gtccttttca tggctgaata atattccttt ttatagttgg accacatggt gtttattaac 124620
cttgatatac ttaatttact ttttatttga atctttcttt tgaagaaaga aacaatcatt 124680
ttttcctatt ttatctttct ttaaaagaaa caaatcaact tttcattttg tatactctgc 124740
agcttgacgc tgcttgccac accaattggc tcttttaaat ataaattaaa gcaggacaag 124800
gtagcacttg cctttgatac cagatagcat tcaatgggca gaagaaggta gatctctgta 124860
cgtttgaggc tagcctggtc tataagacag ccaaggtac acagagaaac cctgtctcaa 124920
aaaaaaaaaa aaaaatagag ctttttgttc tttcaaatgg gttctttctt taaaattatt 124980
cttttctcct gtgaggacac agtagaaagc ctgaagctat agttttgtgg tagagcagtt 125040
taccaaggat agagcttcat ggtaaaccag ttaggtaatg tataaggccc tgggttccat 125100
ccccaggact gtaggatctg ctggtggaag agtaggatgt agtctccatc ccagcaggga 125160
gagatgggga gaattttttt taaaaagaaa caaacaaaaa tcctagattt gtccaaacat 125220

```

cctactgtcc ttcatcttcc ttgtctgtgg gtggcaccaa aagctaaact caacctccaa 125280
tcctgccaac tgtcctaatt tcttttgaca aaaatgttcc ttgatgaggg attggagaga 125340
gaaattatca acattctgga aatttttctc ttcagaaagg agcttgttgc cacacaagca 125400
ggaagtgtctg gcacagcaga gttgatgagg agaggagagg ggtcatatta ttttttattt 125460
ctttgatttt tgacacaagc cctgatccc accacttggg aggcagaggc aggtggatct 125520
ctgtgagttt gaggccagtt tgagatctat agagcaagtt gcaggacagc ataagtacat 125580
agagagacct tgtctcaaaa tacacaaaaa ctctgaagtc ctgatcctcg tgcctctacc 125640
tccatgctat gctggaaaatt gaaccagag tctaaacacc agccatgctg gtaccaacga 125700
tgctgtacca actgagttat atccctagcc cctatcacta atgttaaaaa ttattaatac 125760
tgcatattga tttaccacc catgatggtt tgtatattct tggaccaggg agtggcacct 125820
tttgaagggtg tgacctgtt ggaattggtg tgacctggtt ggagtaggtt tgtcactgtg 125880
ggtgtgggca taagatcctc accctaggaa agagaggccc attagtcttg caaactttat 125940
atgcctcagt acaggggaac gacagggcc aagaagtgcga gtgggtgggt agaggagtgg 126000
gggggggtat ggaggacttt tgggatagca ttggaaatgt aatgaagaa aatacctaat 126060
aaaagtaaat aaataaataa aataaaaagca aaaaaaaaa agcctcacc tagttgcctg 126120
gaagtcagtc ttccactagc agcctttgaa tgaagacata gaactctcag ctctcctgc 126180
accatgcctg cctagatgct gccatgttcc cacttgatg gtaatgaact gaacctctga 126240
atctgtaagc cagaccaat taagtgttgt tttttataag acttgccttg gtcatggtgt 126300
ctgttgagtt ttgtttactt ttttaagtgt tttattttaa gttgtgtatc tctgtgtgta 126360
tgtgtatgcc agtgcagtac tagctgagga caagaaatga tcatgggatc atctattaac 126420
taaattaaat tgaagttaat gcttgaagt aaagaacatt cagcaaggaa cttgccatta 126480
cagggtcagt ttatgtgata aatatagatg gagcaactag aggtgatggt ctatgcatat 126540
aatccaagga gtgggcaagt ttgaggccag ccaggcctaa aaacaaggaa aagagtatag 126600
aatcaggagt gttgttgtat atatgctgag tgtttggaca catggtacaa gtgtaggagt 126660
cacagcatga acaaaagcat tttgcactct gttctttcct acctctcacc cgccccagac 126720
aggatttttc tgtgttcccc tggctgtcct ggaactcact ctgtagacca ggctgacctc 126780
aaactcagag atccacctgt ctctgcctcc tgagtgtcgg gattgaaggc gtgtatcacc 126840
accactcagc ttcttctacc tcttctgtag atctatetta tacttgtaca ataacttacc 126900
agctaagcca tgttcatgta cctaggcaca tgtaacaggt tcatgtacct agggccatag 126960
gccaatctga tgtgggaagt cctccactga gaccttccc aggaaattct ggattgtgtc 127020
cgctgacagt taaagctcac agcacagctt cgtgtgectg gggaatgggt ctaccttg 127080
tgactatgac ttgtgcctct ttcaaatcat ggaatcttat acttgtcaca tcattgatgc 127140
ttagaaaagt ttagatttag gagcattttg ttttagttag aagtgttcaa cctataaggc 127200
catatgttaa ttttttgcac agtggccaca cttgtagtgt gatctttatc gctgtatctt 127260
ttagcacctt ccaagtttca tggattcatg cttttgttac cccacagga catggactct 127320
ctgtgggaca ccagaatata tcgccccaga agtcattcag agcaaaggtc atggaagggc 127380
tgtggactgg tgggcaactg gcattcttat attcgagatg ctgtctgggt gagtgacct 127440
cctgacagac atggctgcat acacggccta tgaagaacct tagcatcccc tttttcctaa 127500
gtctgcagat acatggcata tggatgcact cacataatgt actgtcaaga ttgaagggtg 127560

```

attgggtggt tagtttactt aaacaagact ttaacgtttc atagacatcc atagttactt 127620
atgtataaca tccatcttct ttatgtgatg gacaccaag gctaatacagt acccaaggtg 127680
aacaatgac actaatcaga aacagctttg taagtagtga tggaagagca gatgaggaag 127740
gcaagctcag ttgttttatt caccctaatt tccctctctt ggcaatgcac aagatacagg 127800
agtgtgggct ctgtctctgt ctcccagttg atgggaaggt tggttgttcc tgatggtcac 127860
tggtagctgt ggaggcaagt atacacctga taaaaattgt gtaaacattg aaagcaagat 127920
tcccagatc taggtgtagc cgagggaatt gtaggccaat accatgggag agttattcct 127980
ctggggaggt gacagtttcc ccagtcccag gggttttct ctggtactga gataaaggaa 128040
aattcatcct ttggtagatc aaccaggtg ggaaaaaagc ttgaaggagg attttactaa 128100
aatagtgtga gatctgtcaa gagaaagaaa gcatctcctt acccaccac cagtcactta 128160
tctaccact catctatcca catgtctatt cactaccta aggcattaat ccaccaccc 128220
atccatccat ctatccactc ttccagctcc tggaggtgcc aggtgtgctt ggcttttgta 128280
gccccatcac cccatctct gcagggttc tgtgagtctg catctctttt tttgtctgtc 128340
atgaggtcac tgtcattgca ttttaaggtca tctgcagcca ggggtgtgctc atgtcaagat 128400
ctgtcactca ttctctagc agagacccta tatgcaaatg atgtcacagt catgtgttct 128460
gaaaaatgta cacatatgt atgtgtttgt aatccatgaa gcttattttc ttaaaaattt 128520
acaaatataa aaccacattt atttatatac acataattta taatatagaa cataatttat 128580
tatatatata tataaaatct atggagtcta ccacatttat ttatatacac ataatttata 128640
atatagaaca taatttatta tatatatata taaaatctat ggagtctagt atatacctga 128700
taaaattgta taatcataca cacacacaca cacacacata tatatatata tatgtgcata 128760
catatacaca caagagaatg atttagaatc aacaaaaaat gattttttca cattgaagtg 128820
attgtgaaga gcctggggtc ccagtgtctt tgaagagggc atctccagca atctaacttc 128880
ttcccactaa acctggcttc ttgaaggttt ataatgatca cttccacccc ctgctgggaa 128940
ggaagctatc aactgaagct ctttgggagc cctcaggacc ctccatgctg tctctctcct 129000
cctgtggcta taccatctcc taagatcatc tgtttcccat ctgtcttcag atggcatgt 129060
taacagttat caagcagtgg atccatttga caaaaaaaaa aaaatgtttg catccattaa 129120
gaaaaataa tagttaacac aaaatagata taattctgta ttttaactctc tactaaatat 129180
ccatgcttct ctctgtgaca ggtttccccc atttttcgat gacaaccgct ttgggattta 129240
ccagaaaatc cttgcatgca aaatagattt cccagacaa ttggatttca cctctaagta 129300
agtgcactcc cgccccggtt tctgccttg ccccatgtc tactttcaaa gttgtgtgaa 129360
atcacactgc aagcatacac tctggcaaa ctggatcagt acaattctgt cagtcatttg 129420
tttccaccag gaaagaaaaa cgtttcagtt attctcattt tactgaaatt taatattcaa 129480
aagacctgct acatatctca tttcttttga gatggacagt gttgaaatta acgcagattt 129540
gggacaagtt gtgtaagcga tcagtttgc catccatcca tcttccctc tatccaacta 129600
tctggttttt ttttcattta ttagttatta actaacttat tgaaacaggg tctcaattta 129660
tagccctagc tagcctggct agtcttgaac tcatagatat ctgaccctg agtctgaga 129720
taaaaggat gcaccacat acacagcttc tttattaact ttttaacttg tctaaatttt 129780
taacttttct ttgaactgtt aagaagggt tagaggaaaa gttagtttat gggaagtatg 129840
acctgaagg agacaatgga ccctaggctc ttcttcatga tcatttccat gtgtaaatat 129900

```

agtattttttt attaatTTTT tgagatactt ccacacatat ggtgtgtttt aatggcattg 129960
gtttattttac tgagctagga gaatctttgt gaatgaatct ctgtgccacc acaaaagtta 130020
actttaattc atttttttct ttttactgaa attgtacata tcataaagaa ttccttttta 130080
ttaatcattt tgtttacatt tcaaatgtta tcccccttcc tggctctccc tccacgaatc 130140
tctcaccccc tccccctcct ctttgccctc aataaggtgc tccccctacc cactcctgcc 130200
tcaaccctct agcatcccc tctctctgggt cattgagcct ccacagaacc aagggtctgcc 130260
cctcccactg ctgccagatg aggcaatcct ctgctacata tgtagtggga gccatggacc 130320
aaccatgtta tactctttgg ttggtagttt agtccctggg agctctgtgt ggtccagtta 130380
gttgatgttg atcttctgtt agggttgcaa tccccctcac cttttcagcc tttcccctaa 130440
ctcttccatt ggggaccccg ggtcaatcc aatggttggc tatgagtatc tccatctctt 130500
gtagtcaggc tctggcagaa cctctcagag gatggccata ccaggctcct gtctgcaagc 130560
acatcttggc atcagcaata gtgtcagggt ttggtgtctg cagatgaaat ggatcacatg 130620
gtgggacagt ctccagatgg cttttccttc agcctctgct ccattttttg ttgctgtatt 130680
tccttttagac agggagaatt ctgggtaaaa attttttagat aggtggatag ccccatcctt 130740
ccaaggagg ccatgcctat ctactggagg tagtctcttc aggttctgtt tccctgtgtt 130800
tgtgtatttc agctaatagcc atccctattg ggtcctgaga gcctgtttca tccctggtgt 130860
cttggaagtt tgagtggttc cccaagttcc ccacctacca ctgctatttc tgtctattca 130920
ttctccttgg cctcttgagg ttctctcctg tctcttctca tacctggctc tgttctcctt 130980
tctttttcct ccttttctc cctcccacc aggtctttcc ttccttttgc ctctgtgat 131040
tattttgttc ccccttctat gtgggagtga agcatccaca agttggcctt ccttcttgtt 131100
aaggttctat gggttattat ttatatgggg gtattctgag cttttgggct aatatccact 131160
tatcagttag tacataccat gaatacctt ttgggtctgg gttacctcac tcaggagttt 131220
atttgctac aaactcatg aagttatcat tctgtagagc tcagtagtat tccattgtgt 131280
aaatgtacca cattttctgt atccattctt cagttgagag acatctaggt tatttacagc 131340
ttctggctat tataaataag gctgctatga acatagtgga gcatgtatcc ttgttatatg 131400
ttggagcatc ttttgagtat atgccaaga gtggtatagc tggctcttca ggtagatcta 131460
tttcaaattt tctgaggaac cacagattga tttccagagt ggttgtacca gtttgcaatc 131520
ccaccaacaa tggagaagtg ttctctttc tccacatcct tgccagcatc tgctgtcacc 131580
tgagtatctc agccattctg actggtgtga gatggaatct cagggttgtt ttgatttgca 131640
tttccatgat gactaaggat gttgaacatt tctctaggtg cttctcagcc attcgggtatt 131700
cctctgttga aaattctctc tttatctctg tgccccattt ttaaattggg ttatttggtt 131760
ctctggagtc tttctttctt gagttctttg tatatattgg atattagccc tctattggat 131820
gtagggttgg taaaaatctt ttccaaatta ccaggttgcct gttttattct gttgtccttt 131880
gccttacaga agtttttcag ttttcaaaat gagatcccat tttgtcaatt gttgatctta 131940
gagcctgagc cagtgggtatt ctgttcagga aaattttccc tgtgccaatg tattcaaagt 132000
tctttccac tttctcttgt attagattga acatatctgg ttttatatgc aagtccttga 132060
tccatttgga ctggaacttt gcacaaggag ataaaaacgg atcattttgc attcttctac 132120
atgcagacca ccagttgaac cagcaccatt tgttgaaaat gctgtttttt tcaactgggtg 132180
gttttagctc ctttgtcaaa gatcaagtaa ccataagtgt gtgggttcat ttctgggtct 132240

tcaattctat tccattgac ttcctgcctg actctgtacc agtaccatgt agttttttatc 132300
actatttgctc tgtagtacag cttgaggta gggatgatga gtcccctaga agttctttta 132360
ttgttgagaa ttgttttcgc tatcctgaat ttttggttat tccagaggaa gttgagaatt 132420
gattgctctt tctatctctg tgaagaattg agttggaatt tttatgggga ttgcattgaa 132480
tccatagatt gcttttggtg agatggccat tttactata ttaattctac ccatccatga 132540
gcatgggaga tttttccatc tctgaggtc gtcttcgatt tctttcttca gagacttgaa 132600
gttcttgtct tataggctct ttacttgccc agttagagtt aagtcaacat attttatatt 132660
atttgtgact atttgtgaagg gtgttttctt gatttcttct ttagcccat tacccttagt 132720
gtagaggaa ggcactgac tgtttaactt aattttatat ccagctactt tactgaagta 132780
gtttatcaag tgtaagagtt ctctgctaga atttttgggg ttgcttatgt atactatcat 132840
attgcctgca aatagggata ttttgacttc ttcctttcca atttgtatcg ctttgaccta 132900
attttgttgt ttaattgcta gctagaactt caagtactat attgcataaa tagagagaga 132960
gtgagcagcc ttggcttgac cctgatttta ctgagattgc ttcaagttc tctccattta 133020
gtttgatatt ggctactggt ttgctctata ttgcttttaa tgtgtttagg tatgtacctt 133080
gaattcctga tctttccaag acttttagca tgaaggggag ttgtatttta ttggaggctt 133140
ttttcagcat ttaatgagat gatcatgtgg ttatttttctc atttgagttt gtttatatag 133200
tggtattatgt taatggattt gcataatatt aacatccctg catccctggg atgaagcctg 133260
cttgattgtg gtgaatgatg gttttgatgt gttctttgca agaattttat tgagtatttt 133320
tgtaacaata ttcataagca aaattggtct gaagtctctt ttctttgttg ggtctttgtg 133380
ttgcataaat atcagtgtaa ctgtggcttc atagaacgaa ttgcgtagag taccttctct 133440
ttctattttg tggaatcgtt tgagaaatat tggatatttg tcttctttga aggtctgata 133500
gaattctgca ctaaaactat ctggcccagg gctgtttttt tttttggggg ggggtgggac 133560
ttttaacgac tgcttctatt tccttagggg tttggggact gtttagacag tttatctggt 133620
cctgatttaa ctttcgttcc taaatctgtc tagaaaatca ttcatttcat ctagattttc 133680
cagtaggctt ttgtagtagg aactgaagat tttctaaatt ttttcagttt ctgttggtat 133740
gtctcccttt tcatttctga tgtaagatgt ttagaggta acacactgct tcacaaacaa 133800
ttactcagta ttcatgttga ccatgcattt catgaagatt atggcaaaaa tagtgaaaaa 133860
gaaaaaacac agagcatatt tatatatatta aaaaacatat aaataccttc aactttcttt 133920
gatttgaatg tggtcagatt tgagcatttt ctaaccagaa tgagcttttg tttccaattg 133980
tttcttttagt tagttaggca gcaggatccc acatagccca gaacttctga tcccttttcc 134040
tcagccttct gaaggcaggg tgacaaacag acttgtgccc ccagtgtgc aacagatgag 134100
atccagggct aggtgaagac tgtactcact gagtataaga actcagaaag cactctgctc 134160
actgagctaa gaacatcctt ttcaccgagc tacagtccct gctggatatt atcatagggt 134220
ctatggattg cagggtgttt gggtatatga gtgtcagac atgtgcgcgc tcacacacac 134280
atacacacac acagccataa cccatggcat tctgtcteta cctgcttta acttctetaa 134340
gtctttgatt taatccacct taccatcctt tgcattctct tgtcttttgt cgacaataga 134400
gacacaggag aataacagat atttgggaac tcattccata ggtgtgtgca gcctgcaaac 134460
tcagtttccc tgtacagaac tgtgtaaag aacacaggtg tggcttctca aacagcctcc 134520
tcagttagtt acacaggaag gaacaatact ggaatggata aatgctaaag ggttgcaggc 134580

gaaacactgg cttatagctc agtgggtgga gtgcacataa ctcagtggag agagtgcctg 134640
aggcagagtg ggctgagtac ttgtagctca gtgggtagag tgcctgtggc tcagtatcta 134700
gaatgcatat agcttagtgg gcagagtgtg tgtaactcag tggggagaat gtttatacct 134760
cagttggtag agagtttgta actcactgtg tagactgtct atagctcaca tggcatagta 134820
cttaactcag tgggtagagt gctgggtggc gagttggcac taacatgccc caagggtgg 134880
gctccatttc ttacatgta aatggaaagc cagtctgcat ccgtggcata taggagattg 134940
aggctggaag acaggggttt aaggtcattg ttaggggttg gagcccagag tgcaagctgc 135000
ctacctgctt gctctcaca atcctggtaa gtctttttcc cacaatagag ataccatgtg 135060
gtgggtgtggg tggaatgagc acctcagttg attctggcat tttctggatc caagtggagt 135120
cttctctgct aacacaggga cctcatcaag aagctgctgg tgggtggacag gacccgacgc 135180
ctaggcaaca tgaaggtag tcatgctaga gcattccagt ttgcacactg acggtgatgt 135240
catccactaa gaggatccca gaccatgtc aatgttaa at tagtttttgg cttgtttgtt 135300
tgttgctggt ttgtttttat taattctgtg tatgtactac tcaggtttat tacctgccac 135360
agtggactca ggtcccctgc agctgcagtt acaggagatt gtctacttcc atatagatgc 135420
tgtgaatcta acctgggtcc tctgaaagag cagccatctc tctggcccct atttgctgtt 135480
ttcctgtagc ccagactaca atcaaaaatca ctatgttgta gctaaggata accttgaact 135540
tgtgaccac tcaacctccc acctcccagg actgggatga catgcatatg cctccactca 135600
tggttgactt attctttatt tttagatatt tatttattta taagacaggg tctcagtata 135660
tacttctgag tgcctagaa atctcttttg tagactaggc tggcatcaaa gttatcatct 135720
gcctccttct ccagagtgtc agaattaaag gcatgtgcca ccaaacctgg ccaactaatt 135780
tattttttaa ttgctttatt ggagatttta gaaatgatac acatgcacac gcacatacac 135840
acacactttt tttttcaa at gctttttact gagtgtttat gtttctctc aagaatgggg 135900
cagaagacat caagcggcac cgggtggtcc gaggtgtgga gtgggaatct gtgccacaaa 135960
gaaaactgaa ggtgggagta ttatacacc ttgaattaaa tgaacagctt catatatggt 136020
cctaaccacc cagttagctc ccactactgt gtctcagtct tccaaattaa ttactagag 136080
gtttattgtc atttattttg cgcttgatgt atgtgtattg tttctgtgtt catgcgacac 136140
atgtgacttc agtactggag taccttcagc ctctcataaa atttgtattc caagtgcacag 136200
gcattacatg tccccactgg gctaccaggt gtcacctcat tcaattattt tatttctttg 136260
ttgctttgtt tattttgaat gactctcagc caccattgt gcccaagtta tcgggtgatg 136320
gtgacatctc caactttgag acttatccag agagtgaatt ggacaagaca cttctgtat 136380
ctgacaaaaga cctggaaaca ttcaaaaatt tctgaggatg agaactcatg tctgaaaggt 136440
aaaacttttt ttttttctga atttctaagt aggggtgtcat gtagccaaag atagctttta 136500
atttaccatg tagttgagaa aatatacatt cagtgcact gagaatgatg aattaaccag 136560
tctgcagggt ttcttactat gtatgattgt caggttaact agtagtaaat gttgataatc 136620
tctgaaccct ccccttcct tttctttgcc agatgtatgt gaagacatcg ataccacacc 136680
ataccacacc acagcacaac ataccacacc aatggccaga accttttttg tcgtacgttt 136740
ccatttccta ctatgaaact agaaggtttg gtgtgtgtat tccagttcct gaaagatcaa 136800
tacaatcatc accttgga cccagctca tttcaacaac tggaacctg cccaatgaga 136860
attcgcaaaa cctgttaaat ttaggtttt ctcttcttc atgagtcttg tgtttgtgct 136920

gtgaattttg tttctttttt tgtttgtttg tctttctact gaacttttta agtttgaatt 136980
tgacccattt ggttttatgg ctgtcagtg atagtgcac agaaattgtg caaactggaa 137040
attttggcac tttgtgcttg tgacatgttc attttttaaa gctttctgaa aaatctttca 137100
ccctacaggc aaaaaaaaaa agggtgagat atagtctttt taaaaatgcc tttctatgca 137160
ttttgcaatc atttgtgtac attgtttatt tagttactgt ttgtttattt agttcctttc 137220
tggtcacttt aaacttggaa gtcaggaagc cacatgccct gcagaccctt attcagatat 137280
agcacaaatg tgtggctttc ctccaatctt ccagtttaga tgttttcagt aaaatatccc 137340
ttcctaaagt taagccagaa ctctgcatac agcatggcac ctgggtgcaa agattgcctt 137400
tttatgataa tacaaatgta cccacatccc cacaaggga ctttaaggat ccaccctta 137460
agccccctcc tcctctgttg taaatggcat tttcttctca ccatcttaac tttgttctcc 137520
cagccatgtc cgtccgtgaa aactcaggtt ccaggccggg aacttctatg aaagtttgta 137580
cagagctgta tttttggtga gctttctcag tgctttccaa tatgcaact aactgggtta 137640
tgtacctcaa acaaacaaac acatacagga gatagaatgc aggattataa tcaagtcttg 137700
tcagtagatg tttgctatta agtaggaaat aacatgaaat tagcatagga aatattgcct 137760
taattctaaa cacacatggg gagatcacac atgcgcacat gcaccctctg tgtgtctcta 137820
aagcaccttg caatctgact ccaatcctaa aaatcaaata aaaaaccctt aatcaggctg 137880
taaatacaat gacactatgc gatgtcacta cagtgcacat agacatcata taggaatcat 137940
aattttctat ttttaagattt ttaattctgt gtgtacatgt gactgcagta cacacagcca 138000
acaagtgcac cagagaccct acagctggac ttataggcag ttctatgccg ccctgcggat 138060
gctgagaacc aaccaacct cgatcctctg cagtccatgt agttaacatg caagaagggg 138120
tggttaaggca aaagcagcca tgaaaaagg tgagggaat atgtcctgtt cttaactctg 138180
agtccaggga gagtgtgca cccaacacct tctcatgaaa caatggaata gttaataaat 138240
ttcaaatttc tctgggtgga gcttgattcg aaccaaagta taaaagataa tcaactagcaa 138300
ataaaaaattt aaaaacaaat ttctgggctg gagagatggc tcagcgggta agagcagtga 138360
ctgctcttcc ggaggctcctg agttcaaata ccagcatcaa cctgggtggct cacaactatc 138420
tgtaatggga tccgatgccc ttttctgatg tgtctaaaga cagctacaat gtacttacat 138480
ataataaata aataaatctt aaaaagcaaa aaaaaaaaaa aggaaatccc ctcttttaaa 138540
aaaaaaaaaa acaaatctct atgtcttca actaagactg actttaatgt ttagtacaga 138600
taaagtacta cgtgctgtgg attggtgctt gtctcactaa actagctgtt acatgttaca 138660
ctgtagaatg tgatttgatg gcttaatact gttcacagga ccctctggct gtgcaaatat 138720
cccaacattg gacaaaaaca taccaatcac cactgtgttg ctaggtgaac ctagtgaaa 138780
atttagcatt gtgtgggtct tgatgttgag gtgaaaatca cagaaagggt ctacttctg 138840
actgtagatt tgaaatatgt tgatttctg ggatttgttt gtttgttttt gttattgttt 138900
tggatgaagc tccgtaggaa gcatttgatg aacattcaac acctgtcatt cttatttgtc 138960
agaacactgt aaaccacctg aaacttataa tgcaaagtca aggtttatgt gtgagttgg 139020
gccccatta ggttgtgttt gttcccatca gtttaggggg aggatctgct tcccaactgt 139080
taaagtgtac tatcaaatct gcctttgagt ctcacacct tgcatctggc ctcacagtta 139140
tttgggagag ggaggttgc cagttgggt atgtaataga catcatgaca tcattatctg 139200
tgtgacttag agaaagtga cccccagcg ctctggtcc tcacatgtca gactaaaacc 139260

```

ccttgtcacc tccgttcttc tcagagtgtg gggctcatca cttgacctgc tataacacag 139320
gtcccacgtg cactgttcag gtgcaccccc cccctgtctg ccgagcaacc gtcagcttgc 139380
ctgaaattat gcagaatgaa aaagcctgtt tcttttctt tttttatcct gatgcatatt 139440
aaaaaaaaatc actgtgattt gtgtgtatat ctctctatat atttgcccca ggaaaacttt 139500
ctgctgtcta atttataaaa tactattact gagtccaggt ttgtttaata aaagtttgta 139560
tgttttaaga aatctgtttc aggtcgtttc ttgacttttc ctgtaacaca gggtaacacc 139620
ataaaacaca agtcattgac catggttaat gacctcagtg atccagtcac caacagtagt 139680
tggtgcccac ttctcagagg cagaactagt gaagctgaaa tgaagttggg ttaatcaagg 139740
aaattggtct gcacccctgt aacaggttga tgattgtttt gaggaatatt agtaccagg 139800
atagtggag tattacaaac ttcagacgtc attaacttgg gggatggggg taggggtggtg 139860
cataacctaa gtcacaagag tgtgctatgt gggatttctt ttctggctct tatacgtttc 139920
tgtgcatctc tttatttttc ttttactttt tttaatgaat aatatcttta tttacattac 139980
aaatgttata ctctttccca gttccctcc ccagaagccc cctatcccat cctctaccc 140040
cctgcttcta tgagggtgtt ccctcaccca cccaccaact cctacctccc tgccctcgat 140100
tcacctacac tggggtatcg agccttcaca ggaccaaggg cctctactcc cactgatacc 140160
taacaaggcc atcctctact acatatgcgg ctggagccat gggtcctccc atgtgtactc 140220
cttggttggt ggtttagtc ctgggagctt tgggggatct ggggtggtga tattgttggt 140280
cttcctatgg ggttgcaaac cccttcagct ccttcagtcc tttctctaac tcctccattg 140340
gggacctgt gctcagtcga gtggttggt gtgagcatcg cctctgtatt tatcaggctc 140400
tggcagggcc tctcaagaga tagctatata aggtcctgt cagcatgcac ttcttggaat 140460
ccacaatagt ttctgcattt ggtgactgta tatgggatag atccccaggt ggggcagtct 140520
ctggatgacc tttccttcag tctctgctc atactttatc tccatatttg ctctgtgag 140580
tagtttgta ctcatctaa gaaggaccaa agcaccaca ctccggtctt cttcttgag 140640
catcatgtgg tctgtgaatt gtatcttggg tattccgagc ttttgggcta atgtccactt 140700
atcagtgagt acataccatg ggtgttctt tgtatcttgg ttacctact caggatattt 140760
tctagttcca tccagttgcc taagaatttc atgaaattat tgttcttaat agctgagtgg 140820
tactccattg tataaatgta ccacattttc tgtatctatt cctctgttga aggacatctg 140880
ggttctttcc aacttctagc tattataaat aaggtgtta tgaacatagt ggagcatgtg 140940
acctgttat gtgttgga atctttggg tatgtgetca ggaatggtc tcttagtttt 141000
aatctattgg tttctgccct gactttgatc atttctgtc atcgtcctc ctgtgtgtgt 141060
ttgcttcttt tttctaaagt cgtcagatat acttttaata tgtagtatg agaactctcc 141120
aatgtgttta tggaggcatt tgggtctata aactttctc ttaacctgc ttttagagtg 141180
tcccataagt ttggatatgt tgtgccctca ttttcattga attctagaaa gttattcatt 141240
cctttctttt ctctgacccc agtgatcatt gttgttgttc agttttgatg aggagtatgt 141300
ggactttctg ttgtttctgt tgttgttgtt gttgttgttg ttgttgtgtt tgttgttgtt 141360
gaagttcaga tttaatccat ggtgatctga taggatggga ttatttcaat cttcttgat 141420
ctgttgagac ttggtttgtg acagactata tggtcagttt cggagaaggt tccgtgaggt 141480
gctgagaagg tatattcttt tgtatttggg tgatagatat atgttaagtc catttaaate 141540
ataacctctg ttagttttgt tatttctctg tttagtttct gtctcaatga cctgtcaatt 141600

```

ggtaagagtg gaatggtgaa gtctcccact attagcgtgt gggattcatg tgtgattaat 141660
 ctttagtaat gcatctttta cgaatgtggg tgcctttgca tttgaggcat agttgttcag 141720
 aactgagatg ccttcttggg tgattttcct ttagtgagta tgaagtattc ttcctgggtca 141780
 tttctgattg cttttgggtg aaagtctgtt ttattagata ttaaaatggc tagtccatct 141840
 tgtttcttag gtgcatttgc ttgaaaaacc tttttttcag cttttattaa tatctatctt 141900
 tttgctgaga tgtttcttgt gtacagcaga atgatggatt ctatttacac atccattcag 141960
 ctagcctgcg tcttttaact ggggaattga atctatggat gtttaagagat attaatgac 142020
 aatgattgtt ataactttct gttattttga tgggtggtagt ggtggtagta tgtgtgtgtg 142080
 tttctcttct attttaatgg tgtggatcta tttatttatt tttttattta ttcattgtat 142140
 tttcttttagt gtagttagcc tcattgggtt tgacttttcc ttctagtatc ctctgaaggg 142200
 ttgggtagat ggaaaggtag tttgaatttg gctttgtcat agaatatctt agtttcttca 142260
 tctatgttga ctgaaagttt tgetggggca gtgagccccg tctgccagac cttcaagggt 142320
 ccaccatgtt ctgaaagggt agtattgtca ggctgtcggc ctgtgccacg cagccgcaat 142380
 ggatccaagt ttgaaacatg gcaactctga aagatattac caggagactg aagtccatca 142440
 aaaatatcca gaaaattacc aagtctatga agatgggtggc agctataaag tacacccggg 142500
 ctgagcggga gctgaagcct actcaagcgt atggaacagg gacctgagga caataagaag 142560
 cacctcatta ttggtgtgtc ctcatagata gggctttgtg gtgctattca ttcctcagtg 142620
 gctaaacaga tgaagaatga agtggctgcc ctacacagcag ctgggaaaaa agttatgatt 142680
 gtttgagttg gtgaaaaaat caaggtcata ctttatagga ctcatcttga tcagtttttg 142740
 gtgtcattca aagatgtgcg acagaagccc cctacttttg gagatgcacc agtcattgcc 142800
 cttgagtttt taaattctgg atatgaattt gataacgact ctatcatttt taatcagttc 142860
 aagcttgta tctctacaa gacagaagag aaacccatct tctctctcaa taccattgcg 142920
 actgctgaga ccatgagcat ttatgatgac attgatgctg atgtgctgca gaattaccag 142980
 gaatacaatc tggccaacct catctactac tccctgaagg agtccaccac cagtgagcag 143040
 agtgccagga tgactgccat ggacaacacc agcaagaatg cttctgatat gattgacaaa 143100
 ttgacgttga ctttcaacca caccgcccag gatgtcatca caaaggagtt ggttgaaatc 143160
 atcatcatca tgctgctctg aattaatgaa aatcaagttg tatcctcaga caagaggtaa 143220
 agaagaagaa tgtgcaggct gattttaact gattgctatc tttgtcagaa gaaacttggg 143280
 ccactgagtt acaaagatag caggatgttt gttgagaaat tgggtgtaag tataatatat 143340
 ccatctttat attttacttg gccttttcc cttgcagett ttaatattct ttcttctata 143400
 tattttagtgt tatgattatt atgtgacagg aggactttct tttctgggtcc aatctgtttg 143460
 gtgttcttta ggcttcttat acatttataat ccatctcttt ctttaggtta gggataattt 143520
 cttctatgat tttgttgaag atgtttctgg accttgagc tggcaatctt ctcttcttc 143580
 tatttctatt attcttaggt ttggttgtt catagtgtcc caagtttctt ggatgtttcg 143640
 tgtcatgaac tttttagatt ttgcatttcc tttgacataa atattgatat ctactactac 143700
 tactgactca tctcttgtat tctgttgatg aggettgtat ctttagttct tgttctcttt 143760
 cctaggtttt ccatctccag gatttccatca gtttgtgttt tctttattgc ttctatttct 143820
 cttttaaagt cttgtacagt tttattcata tccttcacct gtttggtcgg attttctgt 143880
 ctttctttat atttatttgc ttccttgttt aatgettcta actgtttgaa tgtacttttc 143940

```

tgtagtgtgtt tgtttgtttg cttttcaaga cagggtttct ctgtgcagtc ctggctgtct 144000
tggaactctg tagaccaggc tggcctcgaa ctcaaaaatc tgcctgccac cacctcccaa 144060
gtgctgggat taaagggtgt caccaccact gcccggcttc tgtatttctt tatgggattt 144120
attcatgtcc tctttaaagg cctctatctt tataagactg gatttaagat cctcttcttg 144180
tgtttcagtt tccttagggg atacagggtt tgttgtggca gcacagctga gctctggtgg 144240
tgccatacta ccctaggtct tgttggttgt gttcttaagc tagcttttag gcatctgctt 144300
ttccctgggtg ttggctgtat gatcctgatg ccagcaggac ttctctggaa gatgggggag 144360
ccatagtaca gacaatggag gtcagggttac acaattctgg gggctgtgcc tgagggtggac 144420
cccactgata agggattggg ggagcaatgc tccaacctgg aagttcttgg ggtttccaca 144480
ggcctccaca tagaaacagg atgctcttga ggtcccctaa ggctcttcag gactgaagag 144540
caagcccaga actaggcagt agagttcagg ggactgtgca caactctgcc tgctgtatcc 144600
cagggtggacc caactgagaa gggattgggt gagcagggtt ccaagctggg tagttttggg 144660
gtctggaagt ctccacagg aaagcatgac agtcttggga tctccaagg ttctgtcagg 144720
actgaagagc taattcagag ttagataatc aagtccctt tgatttttca tgtgactttt 144780
ttgtataaca tacatttaca tttattaatg aatatctcta aatcagcaa ccattaaaaa 144840
gtgattgcat tatgtgttca agcagaacta gcaactttcg ttttttaaaa agcacaaatc 144900
ttaaaaatct caatttatc acatacataa tacagcatac tagttatgtt aaatgctaca 144960
aaccaatgtg agtctaactg gatggggaaa agcacacatt taagctttaa gaaacatttt 145020
tcctatata ttagcatttt cttaaataca tacatgagat aaatgaggta actataaaat 145080
atacagggaa caaccatcca tcttgttat atgtatatgt atatgtatat atatatatat 145140
atatttatat ttatatatat atatatatat atatatatat acacacacac 145200
acatgcatac atacatctat aaaacctttc taacacagaa aacagtgtct ggcccacatt 145260
gttaggaaaa gataactact attatgacta ggccagaagt tggtaaataa agagtaaaca 145320
atgccaaagg cccaccacag gaaaccattg gtaacatgga gtctatagca aggtcagcaa 145380
atcacaacaa tcctaagtaa ttgtgttcca agatatttga tcacattgtg aacccaaga 145440
ttgtgaactg gaaaaaaaaa aactttcttg ttgttgtatg gcttagccct agcacacacc 145500
tttaacccaa gagctttctt ttttgttgt tgtttctttt tttttccatt ttttattagg 145560
tatttacctc atttacattt ccaatgtctat accaaaagtc cccataccc accaccccc 145620
actcccctac ccacccactc cccctttttg gccctggcat tcccctgtac tggggcatat 145680
aaagttccaa gagctttcta taaataagag ctaaataaag tcaactgtag gtcaagaggc 145740
agagcaaaca accaattgag agagagtga catagaaagt agaattggac gacattgagt 145800
tgaaggttat ttaagacagt ataaagaagg aaaaggaact ttttcttctt gggacactgg 145860
tggaatagaa aggtcaactg ggtgcttttt tctgctctc tgaactagca ggctctcatc 145920
ataatgtctg gcttttgagt cttcatttgg caaatagaac atttgggatt ctgtttttta 145980
aacaacataa ctgtttcata attagttttt aaataatttt aaaaagtgt taccctcag 146040
acctgcttgt tggattact gtagccaaca caatccatga gccaatctct ctgtcccagg 146100
gtttcaaatac acagggtttg aatttttttg ttgttgttgg agtgaggag agatagagg 146160
tggaagaagg ggttctctgt gtaaacagg tagataaata tagtgaacc atcacctgg 146220
tacatacagt aaactttagg ttctttagg gtgggccaat gggcccctgg caggctgggt 146280

```

```

gggatgcagg aaacctgggc tgctgcatga gaatgggggtt tgttggaaca ggcctgctat 146340
cagggtgctgg cccacaagt ggtttattca cttagggcaa caacccaga tggggatagg 146400
aaaggaaata aatgggactt gaaagtgtag ggaactcaga cttctccaga ccttgagggc 146460
aggagtcagg ccaggaaggg ccataagata gaggttcatg ccctccttgt ctctgtcctt 146520
atgggattcc taggagactc acccaggcag gtgagagaca ggccctgact ggagaggaaa 146580
tgccttgaaa atcaaacagt cctggtagtc tcatgtgact tataaacact tttattaaaa 146640
cactcccttg gtttttcttt tctttttaag atttatttat tattatatct aagtacactg 146700
tttttagctgt acttcagatg caccagaaga ggggtgacaga tctcatcatg gatggttgtg 146760
agccaccatg tagttgctgg gatttgaact caagacctc ggaagagcag tcagtgtctt 146820
taaccactga gccatctctc atcacagggtt tttgtgtctt aaatgctgtc ttgttacata 146880
accagagtgg tctgaagctc agattggcat tagacacact gttgtcttcc tctaccaag 146940
gctttgcagc tggagttagg gatggttgta aactactatg tgggtactgg gagtcaaacc 147000
aggggcctct actagagtaa ccagtgttct ttaaaaatga tttatttatt tgttttatat 147060
aagtacactg tagctgtctt caaatacacc agaagagggc atggatcca ttacagatgg 147120
ttgtaagcca tcatgtggtt gctggggatt gaactcagga cctctggcag agcagtcaat 147180
gctcttaacc actgagtcac ctctccagca cctaaatgct gaaattctaa tttgtacctt 147240
ccctacaaag gtagaaacaa atgctaagt atgctttgta tgaattattg tgactcagaa 147300
tgaggtagtt gactgtgtct tgcaagcccg aggcctacc tttgatcttc agtgccatac 147360
agaaacaaaa caaacgtatt aaagagtcct cagattttca gtagctcccc tttctgcctc 147420
tatacatgtg gccatagatt ggattggaca aataggcaga tggagaccct gtgaggggtg 147480
agatgagcaa aattattcta gaagtagtac agggggtaca ctaaggctga ctgggtctttg 147540
gggtaaaatg gtttgttata ccacagaaag acagcaaggc aagaagagct cttgagggga 147600
actctggtcc atgtgggaaa gtaggaatcc ctcttgtac gcttaggagg aggggtaaaa 147660
atccatgcta catacacaaa agattttatg cttgtaactg acatgattgc agtagttccc 147720
acagaccacc ttcactgcaa gacagaagtt ctaagcatag gctgtgatct gcagaaagga 147780
cccttgacaa tgtcaaatga cagttttgct tccactttgg agaaggcatt tttcccaaca 147840
tggagaggta tccattgctt ctccagaattc tagagtgtt agaatggcct tgctacttgc 147900
aatatgcca agggtcctta ctctcaactc cagaaactct ctgtatgact attatcaaca 147960
ataatattaa ataatgcatt actattatct atttgtctaa atttttattg aatctctata 148020
tagtatattc catctattta cctgtcaata tttatctcat tttttctct tgaaaatatt 148080
tctgtgcac aatgttttct ttgcaggtat gtatacctag tgccgatata gactgtaagg 148140
atcccatgga attgaagttg cagatggttg taagaggcca tgtggaggct gtaaatcaag 148200
ccttggtccc acagaagagc agcaaatgca ttttaatagg tgatccatca gtccaggact 148260
cattcttccc ttttctatct gagggagcat ctgtaagcct aaaggggcct tgaagtcaca 148320
atcctcctgt ctccagctcc aggggactgg gagtgtagtt gactctgctc taactaaact 148380
taacaggctt ttatggtgct tagtgccaat aagtaaaatg atggagatga gaaaatgaaa 148440
agagcccaga gcagaagata gatgcccag gccaacccag atttaaataat ggattaggct 148500
caggaggcca ggggtacattt accatgctag aggtcatca ggggctatag acacctgttg 148560
tgtactggat ctgatcctgg attgggtcca caagtgtctt ggaatttttt ttaattaggt 148620

```

attttctca tttacatttc caatgctatc ccaaaagtcc cccataccct cccccccatt 148680
ctcctaccca cccactccca cttcttggcc ctggcggttc cctgtactga ggtgtactga 148740
ggcatataaa gtttgcaagt acaatgggcc tctcttccca atgatggccg actaggccat 148800
cttctgatac atatgcagct agagacacga gctccgggggt actggttagt tcatattggt 148860
gttctaccta taggactgca gatcccttta ggtccttggg tactttctct agctcctcca 148920
ttgggggacc tgtgatccat ccaatagctg actgtgagca tccacttctg tgtttgctag 148980
gctccagcat agtctcaca gagacagcta tatcagagtc ctttcagcaa aatcttgcta 149040
gtgtatgcaa tgggtgcagc gtttggaggc tgattatggg atggatcccc ggatatggta 149100
gtctctagat ggccatcct tttgtctcag ctccaaactt tgtctctgta actccttcca 149160
tgggtgttta gttcccaatt ctaagaagg gcaaagtgtc cacactttgg ttttcattct 149220
tcttcagttt catgtacttt gtatcttgta tcttgggtat tctaagtttc tgggctaata 149280
tccacttate agtgagtaca tgtcatgtga gttcttttgt gattgggtta cctcactcag 149340
aatgatgccc tccaggtcca tccatttgc taggaatttc ataaattcat tctttttaat 149400
agctgagcag tactccattg tgtaaagtga acacatttct tgtatccatt cctctgttga 149460
ggggcttctg ggttctttcc agcttctagc tattataaat agggctgcta taaacatagt 149520
ggagcatgtg tttttcttac cggttggaac atcttctgga tatatgcca ggagaggtat 149580
tgctggatcc tccagtagta ctatgtccaa tttctgagg aaccaccaga ctgatttcca 149640
gagttgtaca agtttacaat cccaccagca atgaaggagt gttcctcttt ctccacatcc 149700
ttgccagcac ctgaattctt gatcttagcc attttgactg gtgtaagatg gaatctcagg 149760
gctgttttgg tttgcatttc cctgatggtt aaggatgctg aacatttttt caggtgcttc 149820
tcagccactc ggtattcctc aggtgagaat tctttgttta gctctgagcc tcatttttta 149880
atgggggttt ctgattttct ggagtccacc ttcttgagtt ctttatatat gttggatatt 149940
cgccccctat ctgatttagg ataggtaaag atcctttccc agtctgttgg tggccttttt 150000
gtcttattga cgggtgtcctt tgccttacag aagctttgca gtttcatgag gtcccatttg 150060
tcaattctca atcttacagc acaagacatt gctgttctat tcaggaattt tccccctgtg 150120
cttttcccca ctttctcctc tataagtttc actgtctctg gttttatgtg gaggttccttg 150180
atccacttag atttgacctt aatacaagga gataggaatg gatcaattcg cattcttcca 150240
catgttaact gccagttgtg ccagtaccgt ttgttgaaaa tgcgtgtcttt tttccatttg 150300
catggtttta gctcccttgt caaagatcaa gtgatcatag gtgtgtggat tcatctctgg 150360
gtcttcaatt cttttccact ggtctacttg tctgtcagta taccagtacc atgcagtttt 150420
tatcacaatt gctctgtagt acatcttttag gtccggcatg gtgattccac cagaggttct 150480
tttatccttg agaagagttt ttgtatcct atgttttttg ttattccaga tgaatttgca 150540
gattcctctt tctgattcgt tgaagaattg agttggaatt ttgatgggga ttgcattgaa 150600
tctgtagatt gcttttggca agatagccat ttttactata tcgatcctgc caatccatga 150660
gcatgggaga tctttccatc ttctgagatc ttctataatt tctttcttca gagacttgaa 150720
gttcttttca tacagatctt tcaattcctt atttagagtc atgccaaggt attttatatt 150780
atttgtgact attgagaagg gtgttgatc cctgatttct ttctcagctt gtttattctt 150840
tgtgtagaga aagggtctct gaatttttac atcttccagt gggtttagca gagtccataa 150900
acctaggctg gtgactagat ccaacattgg gttaggtcat cctggtctac agaattgagt 150960

```

ccaggacagc cagagctaca tagtaattcc ctgtctcaaa aaaaaaaatt aaaaagaaag 151020
aaacaaaagaa agaaagaaag aaagaaaagga aggaaggaag gaaggaagga aggaaggaag 151080
gaaggaagag agaaagaaag aacaacatga gttagggaac tgtagagctg gcttttctaat 151140
gcaaacactt acactagatc taaagctctg actatagtcc cctaaacctt aacatgacaa 151200
agtatacact catacaccta gaccagacc taccttacat ctcaaagata atttacattc 151260
acaagtattg taattgaatg ctacaggaaa aaatggacaa aatatgaaac ctatcagatt 151320
ttggtataaa aatcaatttt aatgctttca ctaaccctaa gaccatgacc ataatcccct 151380
aatgctaate ctaaccttaa cacagcagac cacaaaacac tccttactta taaaaaaaca 151440
aaactaacat aaccttacct tgcacatag acataactta tattaagaga catggtaact 151500
tgatgttagg tcaaaaaaaaa tgggatagat tatgaaacct attggatttg ggtgtaaaac 151560
tttcccaaat atcaagatta gaaactcagg ttttgagaag catgattgaa tcttttttga 151620
ggcaataaaa aatttaaacc tggaggatga tgggtggcata tgcctagaat cccatcactc 151680
cggagacaga ggcagatgga actctatgag ttcaggagca gcctgggtcta tagaatgagt 151740
tcaaggacag tcagagccac acaaagaaaa acctgtctca gtaaaatcaa aaaacaaaac 151800
accaaaaaac ccaccactgc cactaccaac aataaataaa taaataaata aataaataaa 151860
taaataaata agtttaaacc tgcggttact agactaatgg gtaactctat gatgctttat 151920
agctctattt ccttgagtca gaatgactgg agaagtgtc tgcagattcc agatggaatg 151980
aaagctatta acctagaaat ggtacactga ggcaaaggaa cccaggcagg gtggttagagt 152040
gaagaaattg cagccataga agtctctaca ccaaaggatga agactaagga gcagcactca 152100
acatctatag ggtcttgggg gcccttgag ttcctacaaa atgcctctgc ctcataaaca 152160
atatgtttgt ctggaagtca gctactttca gcccctatc ataaaacgat aacggaacct 152220
gccatgtcca ggtctgtctg acatgcagaa gtccaagtaa caagatttgg ctatacactt 152280
cttaaagatt ctctgtctcg ctgtctctct gtctctgtct gtctccttct gtctctgtct 152340
ttctgtgtgt atttatatac aagtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 152400
gtgtgtgtgt gtggtgagta cctatttact gactcttggg ccttagtaaa atatattgca 152460
atctgtctca aaactagaag gcaagttttt acaatcagta gatatttgtt ctaaagaggc 152520
ctggattttt aaagcaaaat ctgatatcaa aatatctgtg agggaggcat gacactagca 152580
aagatataga agaagccaga cataataata ccattatgat caactatcca agataagtgc 152640
caccagatat aagattaaca aggaacaaat acctagaacc agaatcaaag gggaaaatga 152700
cacatgggaa taaatactac ctaccattaa gctacagaag atcacttgtg tttattgcca 152760
ctataccaaa aactaggaca tcaaggaaca caaggactaa aacactgaat agactaatgc 152820
aatattcagg aatcctggca tgttattaag aatactatta gctagatggg tgtggaacac 152880
acctttaatc ccgacactca ggaggcagag gcaagagact ctctgagttt gagatcacc 152940
tggtctacag agtgagttcc aggagagcca gggctacatg gagaaactct gtcttgaaaa 153000
acaaacaacc aaatactatt aaaggttgtg aaaaaagttc tcacggatac tttttaacta 153060
gatacaactc tattggtaag gctacacact gtaagatata tgtatttaac tataacaatac 153120
aaatacactt ctaggacca ttgatcaaat atagaagtaa atatacatgc acaatggcaa 153180
acacctttat aggattagc attgtagtgc gcatacccta ctcagcaagc ctccatgaac 153240
aatctttggg tctggtacac agcctttgat tgtcctaagt ttataataga ctctgacaaa 153300

```

```

ggctcatact tcgcaggcaa aatgacacaa gaaacggcaa ataattagat atctaattga 153360
atttctatat accatatagc cctagaacat caggaaacat gagagatgca atgctttgat 153420
caaagaataa ttaatgttgt ctggttaaata ttacctgcaa ttggctttta ttaataaagc 153480
agcttatacc ctgacccagc tgggacttag cctgtctata ttggcttggt cttttccaaa 153540
atctggactt cagcaacatc tccaataaaa cctggagata ttaagcactg actacactat 153600
ttgcttcagt ggcacattgg ttgaaagatg aaatgaaaga taaaggtggc attgccacct 153660
tcaaatcaat gttctcaciaa cttagtggga catagtataa gactaatttg cacaggccct 153720
aattgggtcta aagcagctct catcactctt tgtgacttta ctaccttaat taagttttat 153780
cagttccatt cactttatat gcaaattggt tttgagattt ggctctcag acatatttaa 153840
gttaggagaa gaactaccag atataccatt atttgaaagc ataataacct ttctagaact 153900
tataaacaaa ttactatac aacctcata tgggagcaga ttttgttttg gtcttggaag 153960
acaaagaatg gaactagatc ttaagacgta atggtagata cacaccctt cactctcttc 154020
acactttata ttgccttaat ttagtgttta ctgagtttg aactggctct atatcaaata 154080
ctatgaacac ctctctccaa gcaccacgca cctactggga tacaacacac taacatttag 154140
aaagaagtgg atcaaacctc tctttgtgtt gatgataggt agaagccct ctttgaagct 154200
actaccacta ctgtcactgt agccatctgg acctagctca ctatattcat ttccccagaa 154260
ctccccataa ttgtaggatg gaaggactta atgtaacct cagacttgat aataacaata 154320
gccgcctatt ggaatgttac agaattggca cataaacctg ttgtcttagg atctccattg 154380
ctgtgaagag acaccacagc aacttttata aaggatatca ttttaattggg gctggcttac 154440
aggttcagag gttcagacta ttatcatcat gatggaaaac atgacaacat ccaggaagaa 154500
atgatgctga agtggttaact gagagttcta tatcttgatc cacagacagc agaagactga 154560
tgtgacacac tgggtcagact tgagcttttt agacttcaaa gctcataccc agtagcctac 154620
ttcctccaac aaggccacac ttactccaac atagccacac atccttattg tgccacttcc 154680
tatgacaaaa cattcaaaca catgaatcta tgtggggccac cacacctgtt gagatgcaca 154740
tgataataaa tgcaaacagg ctatgcagaa tagtaagcat ttttaactcac aacttaagag 154800
ctttaccaac ctagacaaat gcaataatcc tactaaagcc tctagcaata ctaattgttg 154860
aaaataactg gaggattaca gaaaggcaca aaaaagcaat ttatgcagac cactggatat 154920
acttagaaca aatggagctc ttgtctctag ctgcataatg atcaaaagat ggcctaatag 154980
gccatcactt gaaagagaga tccattggac ttgcaaacct tatatgcccc agtacagggg 155040
aacgccaggg ccaaaaaggg ggagtgggtg ggtaggggag tgggggtggg gtgggtatgg 155100
gggacttttg gtatagcatt ggaaatgtaa atgagctaaa tacctaataa aaatggaaaa 155160
aataaaaaata aataaaaagag taaaaaaaac ataaaaaate aatgttgatc aacacatttc 155220
gtctgctaag atgccctacc tacaagatga gtttttaatt attccaagct ggtactctga 155280
tggaactctt acaagtaaca cagctatgga agtcagcttt atactaatte tggtagccat 155340
atgggatgga aaagataagg actataaata tgtagaaact gaggtatcca acaataagga 155400
tgacacagca acaataacaa ccaaaccata ttttaatcct ctcaagccat attttaatcc 155460
atctaattgac agtatatcct tcatatttag aatacaagaa ggaacagatt taaaaagaaa 155520
tgagcaatga gagtatatat tatgttttag gtttcattaa ttttcatac tttggacatc 155580
tctctctctc tgaccacca tgaggtgaag gagttcacag aagtctcatc ttgggacagc 155640

```

tgatctctaa tacctcttaa tccccatca ttatgggatt ctaatacttt tggaatatat 155700
tgggacatat accaattccc acttgtgcct actgaaccca aatgtctgcc ctactcttta 155760
gaaagattac aacaaaagtc ttaagacag aaccaggcac ttactctcct aaattcctat 155820
cccattattt catattatta gaaaccaagc tagtggcaca tgtaaattta attttatcac 155880
agccccaac tataactcta cattgcctaa ctttgaaatg atttgtgtat gtttagaatt 155940
aaaacaaaac cttccacttt tacgggggtca caattggaca atatttgggg caatcaactt 156000
gtagaaaact ggtagctta ggcagaaaat cgcaactcta aaatcactgt ccaacacaga 156060
tggaacatgt ctggagaagt gtatctccta gtggtatggg gtggtactac aatgagatga 156120
gcactcatac tactttggct caatgtaaca atcctggctg acaaacataa tccagcaata 156180
gtcaaaacac tatcaaaaagc atctagtttg atacatcagg catcaaatac acacagtgat 156240
caaataatata cagctatcac caacagttaa tcaggaacte aaatccattt aatttgatgt 156300
tggtatttgg cttgctgtat attgctttga ttctgtttat gtatgtgccc tgtatccctg 156360
atttctctaa tacctttaac atgaaggggt attggatttt atcaaagtct ttttcagtgt 156420
ctaatagagat aatcatgtga ttttctttgt ttatatgggt gattatattg atgatattaa 156480
tatattgaat catctctgca tccctgggat gaagcttact tgatcatgtt ggatgatggt 156540
tttaaatgtgt tctctgattc agtttgctaa tattttattg agtatttttg catcaatgtt 156600
cataaaagaa attagtctga gaatcttttg ttgagtcttt gtgtggttta ggtatcaggg 156660
tgactgtagt cacacaaaat gagtttggca gtattcttcc tatttccatt ttgtggaata 156720
gtttgaggag tgttggatatt aggtcttctt tgaaagtctg gtagaattct gactaaaac 156780
catctggccc tgggctttgg gtggaggatt gggagacttt taatgactgc cccccacac 156840
ttaggggtta tagggctgtt taaatagttt acctgatctt gatttaactt tggtaagtgg 156900
tatctgtcta gaaaattgtc catttcaactg agatttcccc gttttgtgga gtataggctt 156960
ttgaagtaag acataaaaat tcttttaatt tcatcagtgc ctgttggtat gtctcccttt 157020
tcatttctga ttttgtttac ttggatactg tctttctgtc ttttggttag tctggctaag 157080
ggtttgtcta tcttgttgat ttctcctaaag aaccggctgc tggtttcatt gattatttgt 157140
actgctttct ttgtttctaa atgaatgatt ttagcccca ttttgattat ttcctgcctt 157200
ctactactct taggtgtact tgcttctttt ttctatagct ttcaggtgta cttttttaa 157260
cttaatttta ttttttactt attcaactta catcccaact actgccccct cccacagtcc 157320
ttcccccatc ccccttcccc ttctcctctg agcagttggg agccttctct gctatctccc 157380
aatcctggca cttcaagtct ctgtgaagtt aggtgcttct cccactgagg ccagtcaagg 157440
gagcccagct agaagaagaa catataccac atacaggcaa cagctcttgg gatagccccct 157500
gctccagttg tttgggaccc acacaaaagac caagctgcac atctgctgca catgttgggg 157560
aggcctaagt ccagcctgtg tatgttctct ttgattgggt ttcagactct gagagctcca 157620
agagtccagg ttatttgcct tgttggctct tctgtggagt tccatccct ttctgggcca 157680
caatccttcc tccatgtctt ccaaaaagagt ccccaagctc catccactat ttggttctgg 157740
gtgtttgtat ctgtctgagt cagctgttgg gtggagcctc ccagaggaca atatgcacct 157800
gtgtgcaagc ataacagagt accattaata gtgttaggga ttggtgcttg tccataggat 157860
gggtctcaag ttgggccagt tattggatgg ccaattcctc aatctctgct ccatcccttg 157920
tccctgcatt tcttgtggac cggacagatt ttgggttgaa atttttgtgg gtgagttggt 157980

gtctctgtcg ctccactgga ttcttgccctg gcttcaggag gcaggttcca tatgcccatt 158040
tttgtgagtc acagctaagg tcactcccat tgattcttgg gtgcctccct tatcccaggt 158100
ctctgtcttg tcctggagat gcccccccc atctcctcat ccttgctcagt tgcaaagttt 158160
tttatggttt aaaatattac ttctactaaa attaaagcat gctatagaat accaccataa 158220
gatatattaga attgtgtgtg ttgtttgctt gctttgtcct tctcaatgtc tttggctatg 158280
gcaggtatca aatgaggaaa tgaaaatgat ttgtataaaa atatgctttt gataagactt 158340
tttagatgga ggagagtgc tgggtattaa accagtgcct catgcagact atttcctctg 158400
cttttgaaaa aaaaaaatct taaaaacatc ttcatccct tgtaaagctc ctaaaatgta 158460
gatatatcat atacttatct gggcaatgat ttcatctgat ttggaattct atcaatagca 158520
agtgatgggt aattcatgtc ccaaaatcaa agaggatcag gaatatatat gtggctagta 158580
ggagagatct tgcccagagt gtgagcctag aatatcacca caagcctcac agcaaaagag 158640
aaaatggctt caaactgaat cttaaagac taaatactta acatctgaaa tgattgagaa 158700
tttgtgccta ggggaaacat agttctacat aaattataaa attattcatg gaacttgta 158760
gaaaaaaaaa ttcatgctac ataagacaca agccatgaaa accatatagc ttacagcta 158820
aaatgattta aaacaatttt taaaatactt aaaaattata aaggagaga ttggttaaga 158880
gcacaaattg ctcttcagg ggatgcagtt tctaatttcg gctaccagat ggtgactcac 158940
acctgtctgg ccacttcagt ggatctgctg ccctcttctg gccttcttga gcaccagaca 159000
tgcccatagt acacatggta ccaaacaccc atacacttaa tttcttaat aaataaaaag 159060
aaaacctaga gtcataaata tgaaagaaaa atgattgtaa gatgaatttt tggatatttg 159120
attccatctc actttaatgt acattcccag aaatcatttt acaccctaaa aaaaggagc 159180
atatactact agatagtaaa agctttaaga gtttggaat agatctcact gttaaagcat 159240
ttgcttagca tgcatatgac ttggattca attctcagca ctgaaagagg ctctacaaga 159300
aaggaaaata caaactgcat taagatgaga cattaaagtt catttctatc aaattcatta 159360
attatattag tctttttttt caatgctaag gattgagccc aaggaagaat tatttcactc 159420
agatgagttt tctttaaact ttgctactaa agattcaaat actgggctgg aaatatggtc 159480
tggtgacata gtgtttaccc agcatgtttg gttcctgaat ttgaccta gtagcggcac 159540
tttcccctta agtaaccctc cttcgagga gaggccttg gtccggtgaa ggtcctctgc 159600
cacagtaaag gggaatgcc ggtccaggaa gtgggagtgg gtgggttggg gagcacggg 159660
aggaaggagc ggataggggg tttcagagg ggaagccagg aaaggggata acatttgaaa 159720
tgtaagtaaa gaaaatatct atttaccctt tcttagaaat gggaacaaaa caccatgga 159780
aggagttaca gagacaaaat ttggagctgt gacgaaagga tggaccatct agtgattgcc 159840
atatgcaggg atccatccca taatcagctt ccaaacgctg acaccattgc atacactagc 159900
aagattttgc tgaaaggacc cagatatagc tgtctcttgt gagactatgc cggagcctag 159960
caaacacaga agtgataat cacagtgcgc tattggatgg gtcatacggc ccctaatgga 160020
ggagctagag aaattacca aggagctaaa gggaactgca accctaatag gtggaacaac 160080
aatatgaact aaccagtacc ccggagctct tgactctagc tgcatatgta tcaaaagatg 160140
gcctagtcgg ccatcactgc aaagagaggc ccattggact tgcaaacttt atatgcccc 160200
gtacagggaa atgccagggc caaaaagggg cagtgggtgg gtaggggatt ggggggggt 160260
gggtatgggg gaccttggg atagcattga aaatctaaac gaggaaaata cctaataaaa 160320

```

aaaaagaaaa tatctaataa aaaaaaagag taaccctccc ttcaaaaaac tcaggaagac 160380
aaaaccacta attttctttc tgaagaaaac aaatcttcaa aaccttagac aaacagtgc 160440
cacctacact ctctacctgc tgaagaaac gaacttcact agagcctggg aagagagcct 160500
gatcctgcat gtacttccaa attctctgcc atccctccca agaaaatcat tagtcctggg 160560
accagcacta ataggctttt gaaacttcat aacagtttat caaactttgg agacatgttt 160620
ccactggcat taagacgtgt tttactgctg ggcagtgggt gcacatgcct ttaatccag 160680
ctctcgggag gcagaggcag gcggatttct gaatttgagg ccagcctggg ctacagagt 160740
agttccagga cagccagggc tatacagaga aaccctatct cggaaaaaca acaacaaca 160800
aaaagatgtg ttttactgta tgaagccagg ttcttccac tatggaatgc ctggatctaa 160860
cttggcacac tgcgtaagca atgcattttg agaagcacag gaatcaatgt gacagacatt 160920
agaggccaac ttgtctatct gtgaagacta attggcatcg ctcttgaga tacagacaga 160980
ggttccgctt ctgttgaatg acaagtgggt gcagtagtga tatectccag gaagcacgaa 161040
gtcctgctga aactgacaa gctagcagca aatgctgtct gtgcttgctc agctagaaca 161100
ccaccttcag cttctttgcc aatctttgcc aatcaaagat taaagaaata gtatggactc 161160
aggaggcaga ggcaggtgga tctctgagtt tgagtccagt ctggtctaca gagaatttaa 161220
ggacaacaca gagaaaccct gtcttgagga gaaaaaagc aaagaaacca aaaagtaatg 161280
tgtatttgcc ctttgcaaaa gcatcagtg aaaatggaaa acttttagttt taaaagttct 161340
gaaggtaggt gtgtaaatcg tgtacctcag cagttgtctg agagaagaca gttatatcgt 161400
gagggttata tgttgagaga cacctacagc taggtagcac cagccagaac tacatagtaa 161460
aacattgttt caaacaaaag tttctataca atttctgaag gattttcaaa gttcttacac 161520
acacacacac acacacacac acacattctt ctttactgtg tggactcatt ctagacttgg 161580
tgggttctta caatttcctc tgatattaga gaattctcta aaaaacaaat tgaaagtaag 161640
tagtggtaac acccctgtgt tcatagcact cagggggctg agacaaccgg cgtgtaagtt 161700
aaagcccaac ctggccttct taaccagacc ctatctttaa tgggctgaga gtgggtctaa 161760
aatttgaggt tattgaaaaa tgtctgaaca ctaaaactat ttgcatagca ttttgagttt 161820
gatacttgcc ccagaatagg caaaggcata taaatacaag aagggtaaaa accttgacaa 161880
aactttccca ctgaaaatga cttgggatgg gggttgcaa agatgtacaa catatttata 161940
gttttacttc tccagtaagg gaacaactaa taaagtagca gttgctacaa aaagaactaa 162000
ttctaggtct gggaagggtg ttcattgatt aagagccctg attgctcttc ctgaggacct 162060
aagttcaact tccagtcac aaccatcggg aactggcggt ccagggatcc aatgccttct 162120
ggcctttgta tgtactggga catggatggg gcaaagacac acatgcagac aaaagaacac 162180
atacatataa aataaaaaaa aatttaaata caaataatc tgtaggttt gttgaatgtc 162240
cacttttctt cataatcaac gtataactta taacatgtcc atttatatgt ccatgtatc 162300
tttctctgcc tgtgccccat ctaagctatg atagaacatg aggaatgagg gaaaaggaaa 162360
gggaggagaa atagaaggaa gaaatttcca aactctcgt ctttctctt cccactttc 162420
attttattat tttgtttccc ttttcatct cctgtccct ttaagtgat gtcgattgta 162480
tctcaggcag gcctcaaagt tgattttag ccaaagatgc ctttgattt ctgatecccc 162540
tgcttccaat ttccagatgt taagattatg ggcttgtag atctcatccc tagaaaagca 162600
taagcttgta gaagtcaagg gacactttta tttactgctg cctctctaga aacttctgc 162660

```

cagtttggca cttacaaaat attttttaga aagaagagga aagtagataa tctatatact 162720
 aaataagtac ttgataactg agtggaaactt aaaattaaaa aaaaaaagca gtgtttgtga 162780
 acaggtttca gtacctcccc atttttctca aagcaaattgg tcctggcggc tgtgtctcac 162840
 acgtgggtaa tgaaatctcc ctgcctaaag atgtacaatg tgaaagtctg tttccccttg 162900
 tgatagaggt taacattgta agccctgcag caccacatgg ctcaggtagt gttgtggtta 162960
 aaattgtgtt tggccaaaag aaactccaac acatatatgc catcgctact tctatttttt 163020
 ttcttaaaca taataaaatt taaagaaaga aaaacctcac aattgttagg atttagtggc 163080
 agaaggctct tgatgggttg gggcagagat gtgctgcaaa gagatcacac catgcaaaca 163140
 gatctcagga gagaggccat ctcagagtgg ggacataaaa gagagagtta gagtcagaga 163200
 gccagactga aagagacaga ctgagagact ggaagacaaa gagaatgggg gtgtgttggg 163260
 ggggggggtg gtaagggttt tgtaacttgt ggaaacagtg taaagagtgg catttgggga 163320
 agggaggtga tgatgtgcct tttggcgtg agttcctgag ggcaggcttg acaagtgcct 163380
 gctttctaac attaatggcc attgatactg gaaaaaaaa ctattttatt actacattaa 163440
 ttgaaatttg caactatatt tataaataat atttatacat ttatggagtc atgttaactt 163500
 tcagcccaag gagagataac attaaaaatg aaatatattt tataaagaaa atattttctt 163560
 aacctcgtaa aagtatacac agtaaaactat ggttatctgt aacatttaaa gtaaataatt 163620
 ttagcttaca atttaattat gatgctgatg gggatatgtc agaaagtat tcatgaaaag 163680
 ttccaattcc ttacacatag attttccaac tactttcttt tgtttattca gaaaggatgg 163740
 gaaactacga gggctaacac cctacctcct tgtttaaggg actgactcaa tcttctactg 163800
 gagatgcccc attgcttttg acttactatg ttcattcagc cttctatttt aggtttgatt 163860
 agtttgattc tacacttaac tttctcctga cataaagtc tcaataagaa agtatattca 163920
 ttaacattgg cctcagaaag agagagggtt taggctgttc actggatata tgatcagaat 163980
 aaaagagata caatacatac acatcagaga gagctgctgt gttggtgcca gaaattgaat 164040
 ccaggctctc tgaaagaaga gccagtgtc ttaagcacct agtactgtct tcagctccaa 164100
 caagtaggtt taaatcttat ttgcaatgg gacctggtgg ctcatgcctt taatcctagg 164160
 tgaatgactg tgatcttgaa ggtagcttgg tctacataat gaattccagg acagccaggg 164220
 ttatgtaaaa aaaaaaaaa atgtgtcaaa acaaaacaaa aaaaaacctt attttgggag 164280
 ggaaaaattg gggtttctgt cctgacaaat ccctagcctt tctgttgaat tctttataaa 164340
 aaatgtattt gtgtaaaagc tctttgttc cttttgcacc caactctcct gcatgaaagg 164400
 tcaacatgaa aatattaaaa atcacaacca agatcggtatg aaatttaaat tataattact 164460
 aaatgggcac atccaaatta ttatgacaga gaaaacaaaa gccctaggac tagggagatg 164520
 tggaaaaatg aagcagtcac gaaatactaa aaccattctt aactgtcctt attctggaag 164580
 gggaaaaatca acatttcctt gaaagetgct gtaatcatgt gaagttcaaa tggtttgatg 164640
 agccttcctc caatcaaaca gatatgatag caactaaatt tctccaacta aattatttac 164700
 aactgactga gacagtccct ctgaagccag gtactcagct aaactattca gaatgaaata 164760
 ggaacggaga agagggtgga aggtctctgta atgacagacc aactggaat agtagccac 164820
 tactgactt cgtagatgtc ctgatatgat gggaatgata gacaagcatg acagtaaggt 164880
 tatgaggtgg gaagaagtga gtggaattac acaaaatcta taaagaggaa gtgaagcaaa 164940
 tgatgtagca agccaccctc ataggatttt gcatctgatg attgagatgg ttactaggat 165000

ctctagctat gaaatctaaa acagcttttt tggggggggg gaatcaatta cctgtagttt 165060
 tattttctgt tcatttttct ttctttgaat agcatgttg tcctgagcca tgaaagtctc 165120
 ccacatacaa accaaaagaa ggaaaaacaa acattcgata atccagttca ctgaaggaaa 165180
 gtacagtggg ttaaataatgc ttaccccagg gaggggcact attagaaggt gtgccttgta 165240
 gaaggagggt tggccttggt ggagggagcg tgttactgtg ggtgtgggct ttgagaccct 165300
 ccttctagcc atgtggaaga cagtcttctc ttgacctca aaacaagatg tacaactcag 165360
 ctttcccggc accatgtcat gcttccact gtgatgataa tagcctgaac ctgagacct 165420
 gcaagtcagc ctcaattaaa cgttgctctt tataaaagtt gccttggtca tggtttttct 165480
 tcacagcaat gaaaacccta agaaaagaagt gataatgaaa ttataaaga gaaataatat 165540
 gtattttatg aggtatcaca tgctgtaata ttcagtagca catgaggatt gaaaattcac 165600
 taaaattcag tggctacttc tgggtgttct acctggaatg cttttatttt taaaagaaca 165660
 tcaactcagt gcaaagtggg ttccattgtt tttatgtaac ttttctagat atgaacctct 165720
 gtttcggctt tcctgtctca ccaatttgtc tctagacacc cattctacta agaaattcca 165780
 cagagtgtct tatacatata ctgttttata caaggtctct attcctctat tccatacacc 165840
 ccataacttg tttctctcct atttccttac aaatgaagga taaagttaaa gcaatttttg 165900
 gaaaagaatt ttattctcac atgaaagcac aggttgcggc ctatgtgggt gctgcctccc 165960
 ttctcttcc tcctccccac tcctctctgg ttgccatgga gaatacagtt gatggaaaca 166020
 tacaattaca agcaacgata 166040

<210> 16

<211> 475

<212> DNA

<213> 小家鼠

<220>

<221> misc_feature

<222> (330) .. (330)

<223> "g" 2个选择性转录起始位点之一

<220>

<221> misc_feature

<222> (427) .. (427)

<223> "a" 2个选择性转录起始位点之一

<220>

<221> misc_feature

<222> (470) .. (472)

<223> 小鼠Pbsn 基因的起始密码子

<400> 16

cagtattgct gatgaatcca tggttcaggt tcaagggtgt tgaaaacttg attgaaaatg 60
 gtcagacttg atattcttcc agtatatctg attggaggaa ctgataatag atatcagatt 120
 taaacctcta ccattccagt taagataata tgatagcatc ttgttcttca tcttctttt 180
 tcttaatagg gacataaaac caatgaataa aaatatacct gaaacatggg ataggcactg 240

ggcattggaa atgacaataa aagtaaattt tccatcccta gtaaagttct ccaggaacct 300
atttgtatac taaatgacac aatgtcaatg tcagtgacac actgccaact gggatgcaga 360
aactgtctca cgccaacat cctgaaagcc aactataaaa agcagagaga tactctgcac 420
cttttcagtg aggtccagat acccacagag cagagacagt cgctcacaca tgatg 475

<210> 17

<211> 4282

<212> DNA

<213> 小家鼠

<220>

<221> misc_feature

<222> (1) .. (3)

<223> 小鼠Pbn基因的终止密码子

<220>

<221> misc_feature

<222> (4) .. (23)

<223> 小鼠Pbn基因的3' UTR 的第1部分的外显子序列

<220>

<221> misc_feature

<222> (24) .. (3768)

<223> 小鼠Pbn基因的内含子序列

<220>

<221> misc_feature

<222> (3769) .. (3982)

<223> 小鼠Pbn基因的3' UTR 的第2部分的外显子序列

<220>

<221> misc_feature

<222> (3983) .. (4282)

<223> 基因间序列

<400> 17

tgactcaaca agatcaggat taggtgagtc aaagcacatt aattttatat cttgaagttt 60
taattttaaat tttatttttaa tatttaagtt attaatatat aatattttaaa gtaaataata 120
ttttatttgt tctttatcct tttcatatat ttatataatg tatattttatc tttcatactt 180
ccacacacct catccaagca acacatctcc ctctatactt catggctttt aaattttatt 240
attattttatt attattatta cctcaatgaa tccaattggg gctattttctg aatagggtat 300
gtcaattcct ggaggcatga gtaatgtaat ataccagggc tattatgtaa tataaaaaaa 360
tggaactgcag ggagctgggt gcacatgcat ttaacctagc gctcaagagg cagaagcaag 420
catatgtctg cgtttttagat aaccctagtc tacagagtga gttccaggac agcaagggtc 480
actcagagaa accctgtctc ataaaaccaa aaagtatatt ttttaaaggc agaagaggaa 540
aggagggagg gagggaggga aagaggcaga cagacagaca ggcaggcagg caggcaaaaa 600

```

gaaggaaaaa gaaaaaatatg gaccctccct ctcccagaaa ctatcaactg gcaatagctc 660
tttgggtgggg gggggggggtc ctgaatccct ctctgctcaa ttctagaatg ttaattagct 720
tgatctgacc agggctctgt gcagaacacc acagttgctg tgagttcatg attgtaacag 780
atctgtcatg ttcagaaaac agaattttat ggctctactc cccatccaga tgataattga 840
tggctaagca tccacagtca cttgtcctca tcctttgacc agctacaaat ttctgcacaa 900
accactcccc actgtaaaaa gttgagcaga agtcaaacat ggaggcacac acccttaate 960
ccaacacttg ggaggcacgg gtagatgaat ctctgtgagt atcaagccag cctgatctac 1020
atactgagct ccagaagatc caggtacata gtctctatct aaacaaacaa acacaaagtt 1080
aaaaagttga tttgaccaa attgagagaa gcataaatct atgagtattt ttaagaccgt 1140
ggcttgga aa catgacagtt catcaccact ggtctccttc ataggtcca tgagctccat 1200
tgtcacaggc ttttgactcg aattacaata gaaaccacc cttaccctg ttcttccata 1260
gatatgaagt tccttccatg gagctggcat gaaattta atcagagagtgc ttggctcccc 1320
aatacagcct ttattgcacc agtggacgca aggatgattt tatagtgtgt tggggaagca 1380
tggtgacatc actgacatct tatcccacat acacagccta ttaagtacat ctaagcactg 1440
tgaacgagtt tcctagtcca tttgacatcg atttcttgat gccctacagc cacagcattt 1500
gggtgtcttca gcaatagtgc cctaccattt agatatgggt tatagtcaag agatatggca 1560
atagccaagt tattttgggt attccaaggc ttccttccat taataaatat catggttggt 1620
cccccattgac taaaaattag attttctactg aataaaccat gtcttctggg aacagcatta 1680
taccattgca gggatcctct gctgaaactt ttttaatact atatttttac ttagcttaca 1740
aactagtgga tttctgtaag acttcattta ccttcagttt cagttgacce tcccctacce 1800
tgttcttccc tatgccc aaa cacatccaca cctactctc tagcccacag ctctcacttt 1860
ctaactctcc ctgtcaccag tgccc aatta tatcgctgt attattatat tttaatcaca 1920
caaccatagg tttccatag aggtttta ataccctcat tctgggttaa ccttccacca 1980
caccctgatt tccccattcc acaaccaact ccatgattaa gccttctgc cccaagtatt 2040
cttctttata cttcatttta atggcattac atttgatgga cccacttct tgatggacce 2100
aattcaaacc agtttcta at tacctggatt cttacatac tccatattat gcatacaaaa 2160
taaaagattc aagtcta atg tccacatgtg agataga atg tgcagtttgt ctttctgagc 2220
ctgagtggcc tcattaagta taataatttc cagttccttc ttttacttg gaaatttcat 2280
attttcatg tttctatg ctgagtaata ttccatetta tacattacat tttccttacc 2340
cattcattag ttgatgaaca gttgggtcaa cttcgtttct tagctattat gaacttaacc 2400
tcagtga gca tggacattca aaggtctctg taacagaata taaaccctt tgtgtacata 2460
tctagaa atg gaggaactag agaaa gacc caaggaacta aagggaactg caaccctata 2520
gggtggaacaa caatatgaac taagcagtac cccggagctc ttgtctctag ctgcatactc 2580
atcaaaa atg ggcctagtcg gccatcactg caaagagagg cccattggac ttgcaaaact 2640
tatatgcccc agtacagggg aatgccaggg ccaaaaagg gggatgggtg ggtaggggag 2700
tggggggggg tgggggactt tttgtatagc attggaa atg taaatgagct aaatacctaa 2760
taaaaa atg aaaaaaaaag aaatggtgta actgagtcac atgggaagtc ttttctaat 2820
ctttggattt gtttatttga tgttcatagt ttttgggttt tggttggttt tgttctaagt 2880
tctttgtata ttgtagacac taatcctcca tcacatgtgt agttggcaaa gatctccatt 2940

```

ccccgagata cctgtgcatt taattgacag cttcctttgc cgtagttttt aattccatga 3000
tatctgacaa gtgtttgtct tactttcttg ctacaagaat cctattcaaa gaatccatac 3060
ctgtgtctat ggtaacaca cactccatgc tttcttctct atcagcttca ggttaccatg 3120
tcttatgaca cggctcttga atcatttgga gttgagggtt ttttcaaggt gacaggaag 3180
agcccagggt catttctctg tatcctgatg tccacttttt cctattcgggt ctatttatgg 3240
aattatata ttttatgtta ggtcattttt cagtggagge attaacaata tccagaagg 3300
gactatttct tactagtgtt gagatgggtat tctcctatat ggggctggta ctgaaggcag 3360
caagttctac ccctagtctt cctgtgagat tcaactacta tctgggacct cgagtgaac 3420
tctgtctgta ggatacatgg ggcttggtaa actccaatgt gaaacaaaaa atatataatt 3480
ttagtttaga ttcatagaaa ctacatctc aaataaacac ataagttcta aaaagtacca 3540
atthaggtct tgatataaga tcatttgtca tataaaaatt ttccatataa ggaaaatttc 3600
catacaaagt tcatgtatat ttccaaatat acaaaattct gtaaaatgtt tttgcatgat 3660
acatcttgtc attgtttgcc tctttaatgg cttgtatttg tttcattttc tactctcatc 3720
aaatatcatg tattactatc ctaaataatat gaaataatc tgttccagca ttacagatga 3780
catcaggaat tttccagtat atttttcctg gaacctgaaa catcaatatg aagatgaagc 3840
aatcttgtct ctcagatcat attttcctat ttattgcaaa ttacaattcc tgtctctgta 3900
ctttctcttt cactcattgt ttcccatgtt ctaatcggta ttagtgcac tttgaatgtt 3960
taaataaatt tattttactt gcatacgtgt tggtaaaagg ggaagctaaa gtacaatgca 4020
cataaatacc tatttgactt tttttaaagg agaggagggt tggaggggtg gcatgtgatt 4080
gctcacgcct gtaatttcag caccggggaa agaggtagag acagttgaat cctctgatgt 4140
caccagtagc cagcctagac tacatgaaat attgcaggcc agtgagagat catcccagaa 4200
aacaaggcag ggacatgaca ggcagctcag tggtaagag cactagctgc tcttccacag 4260
gacctgggtt atattcctaa ca 4282

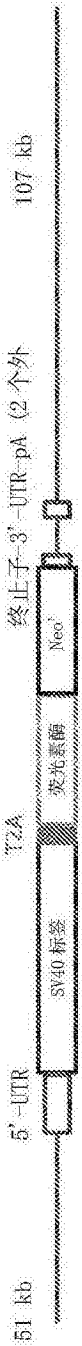


图1

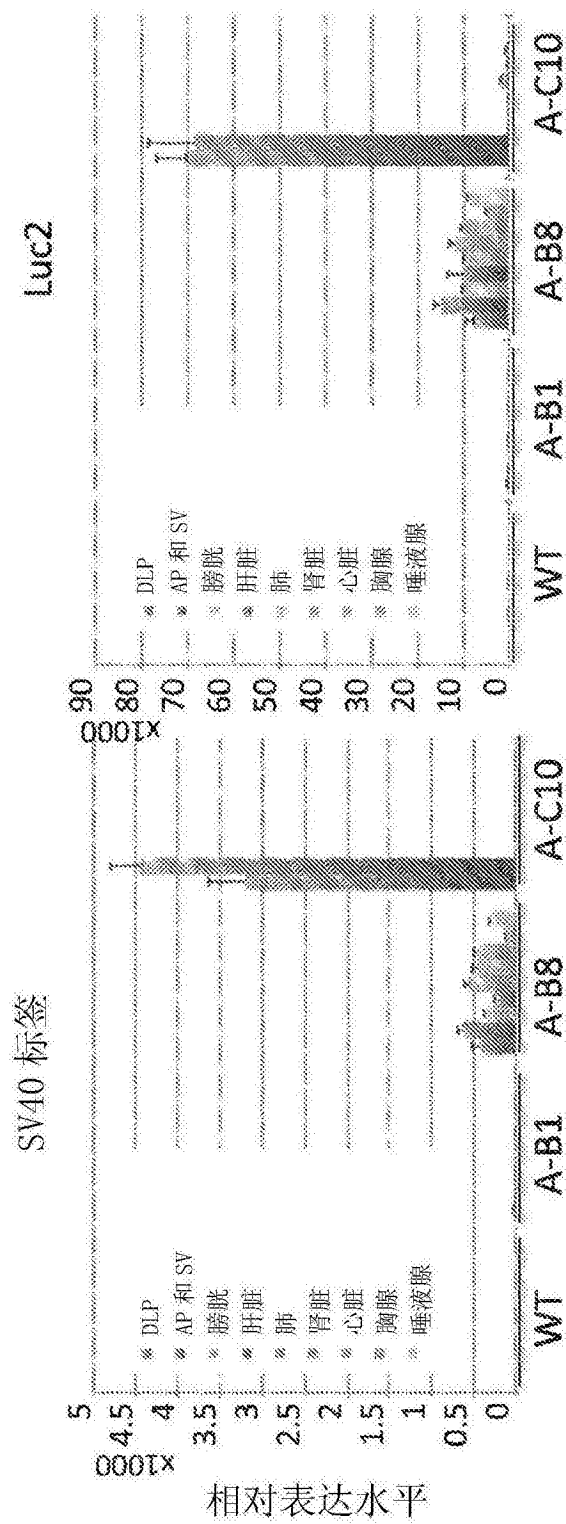


图2

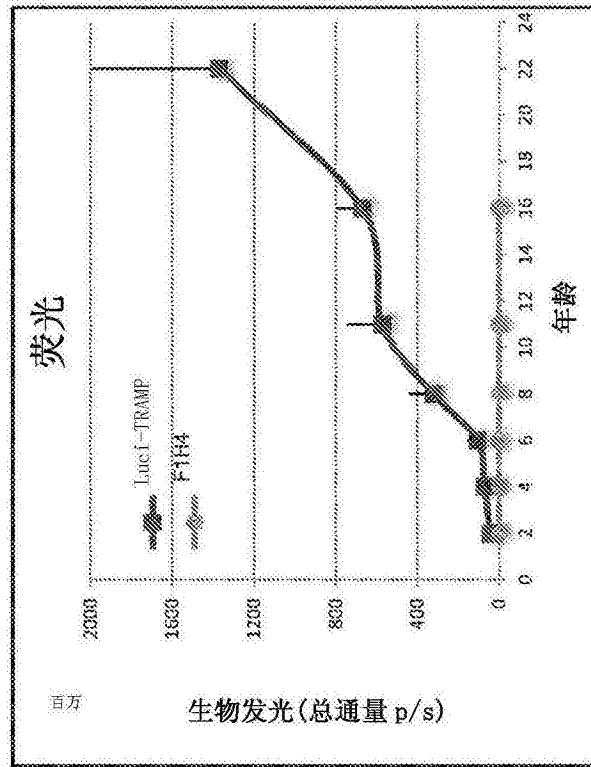


图3A

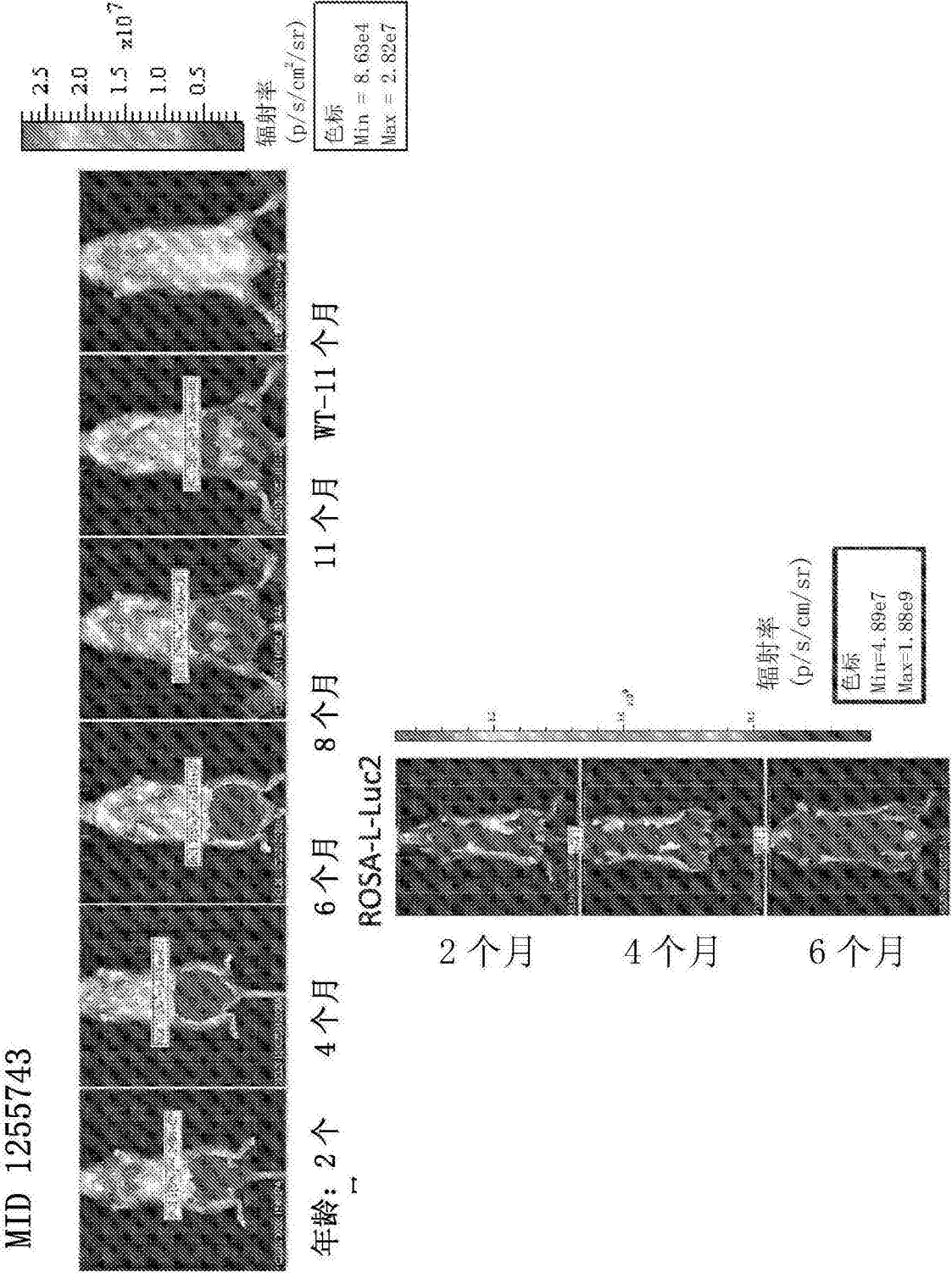


图3B

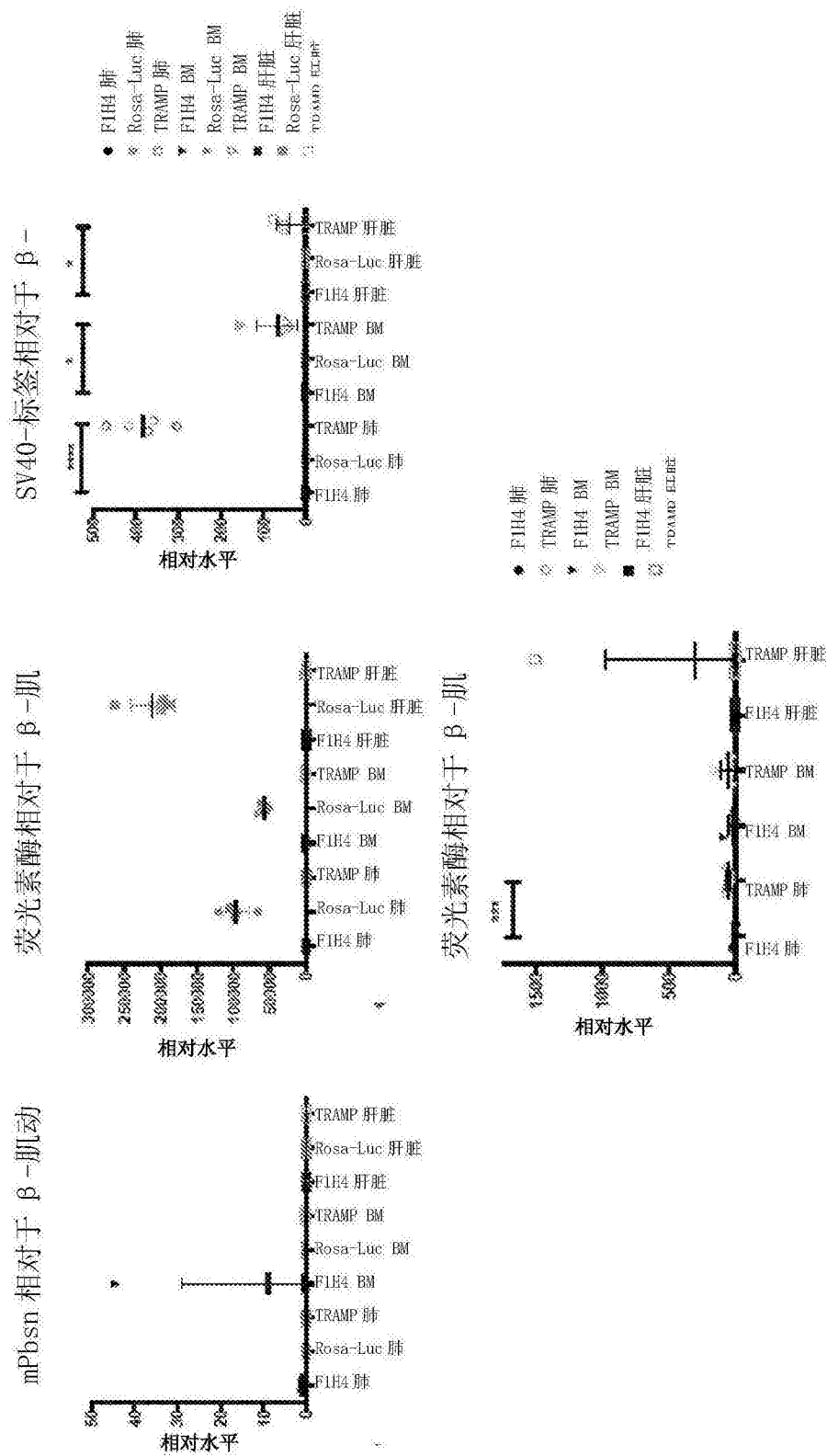


图3C

Luci-TRAMP 小鼠的背外侧叶中的代表性前列腺病理

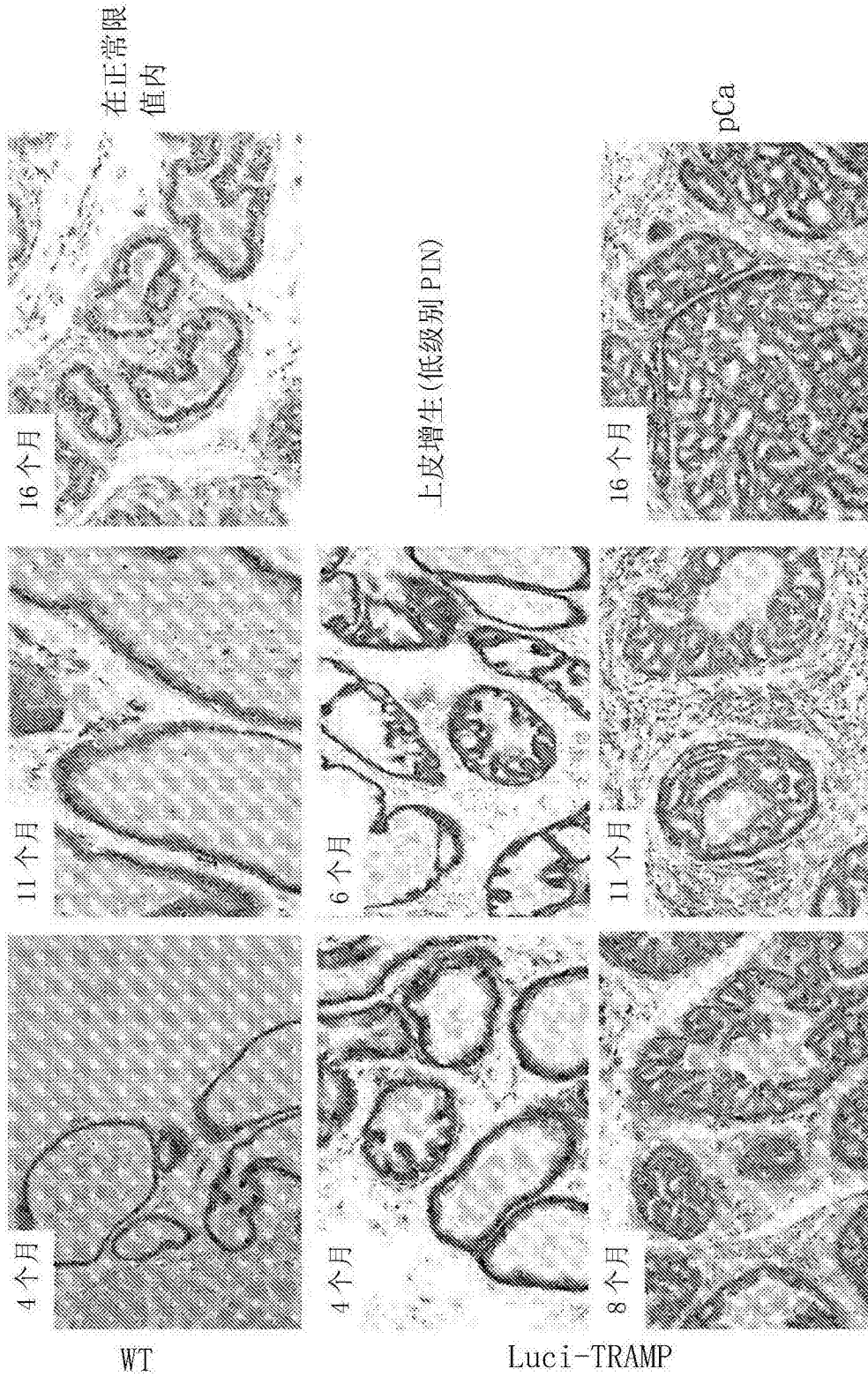


图4A

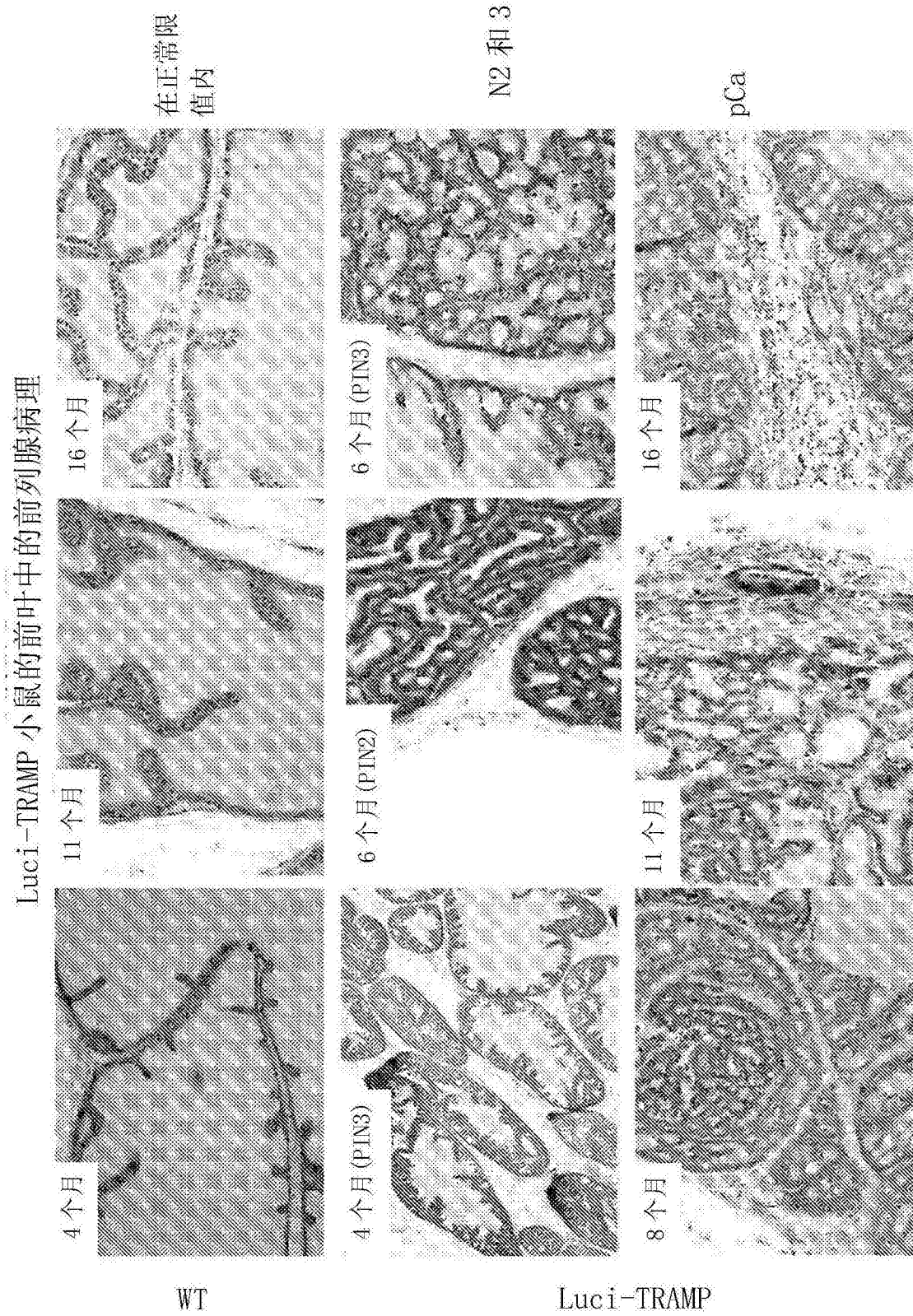


图4B

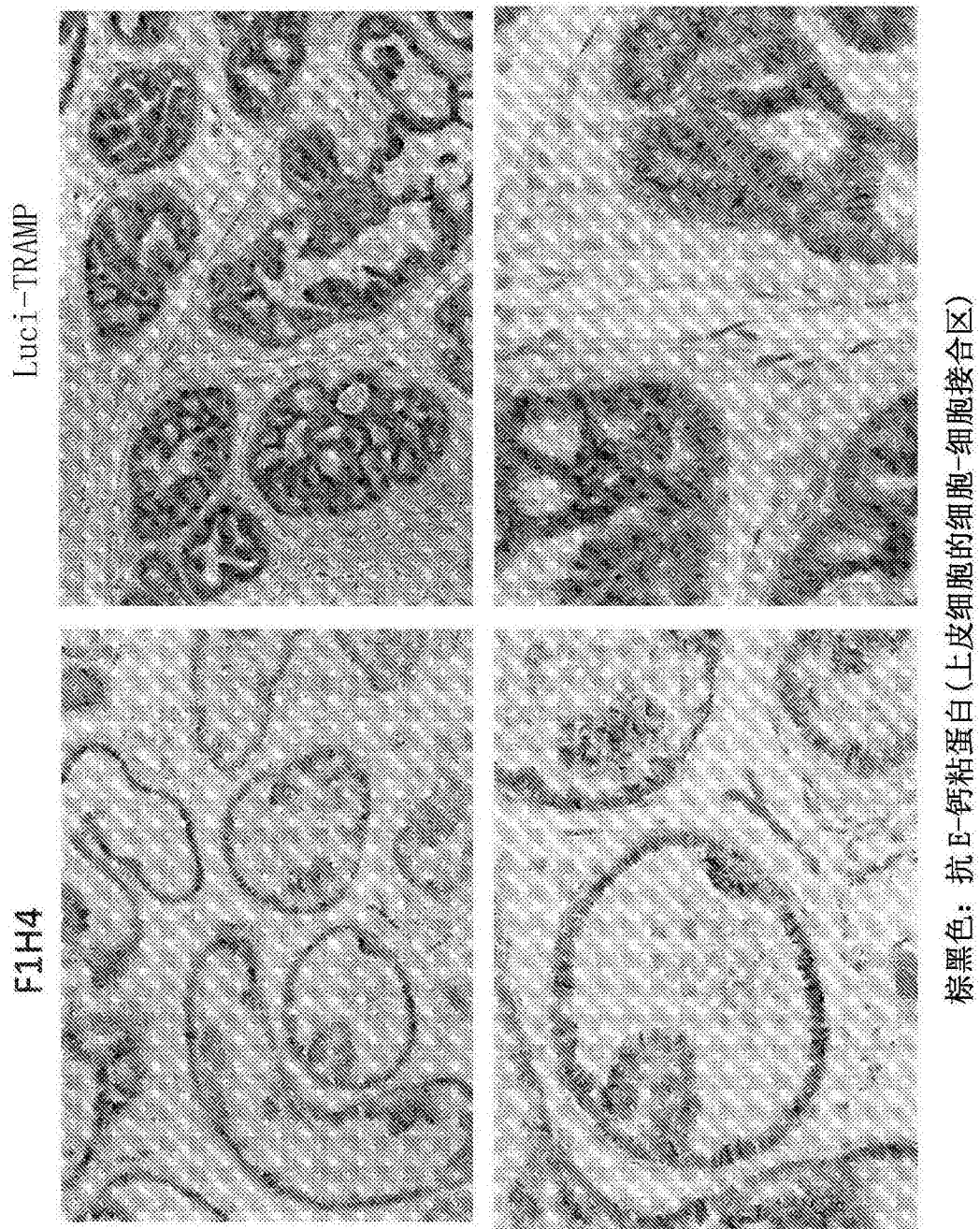


图5A

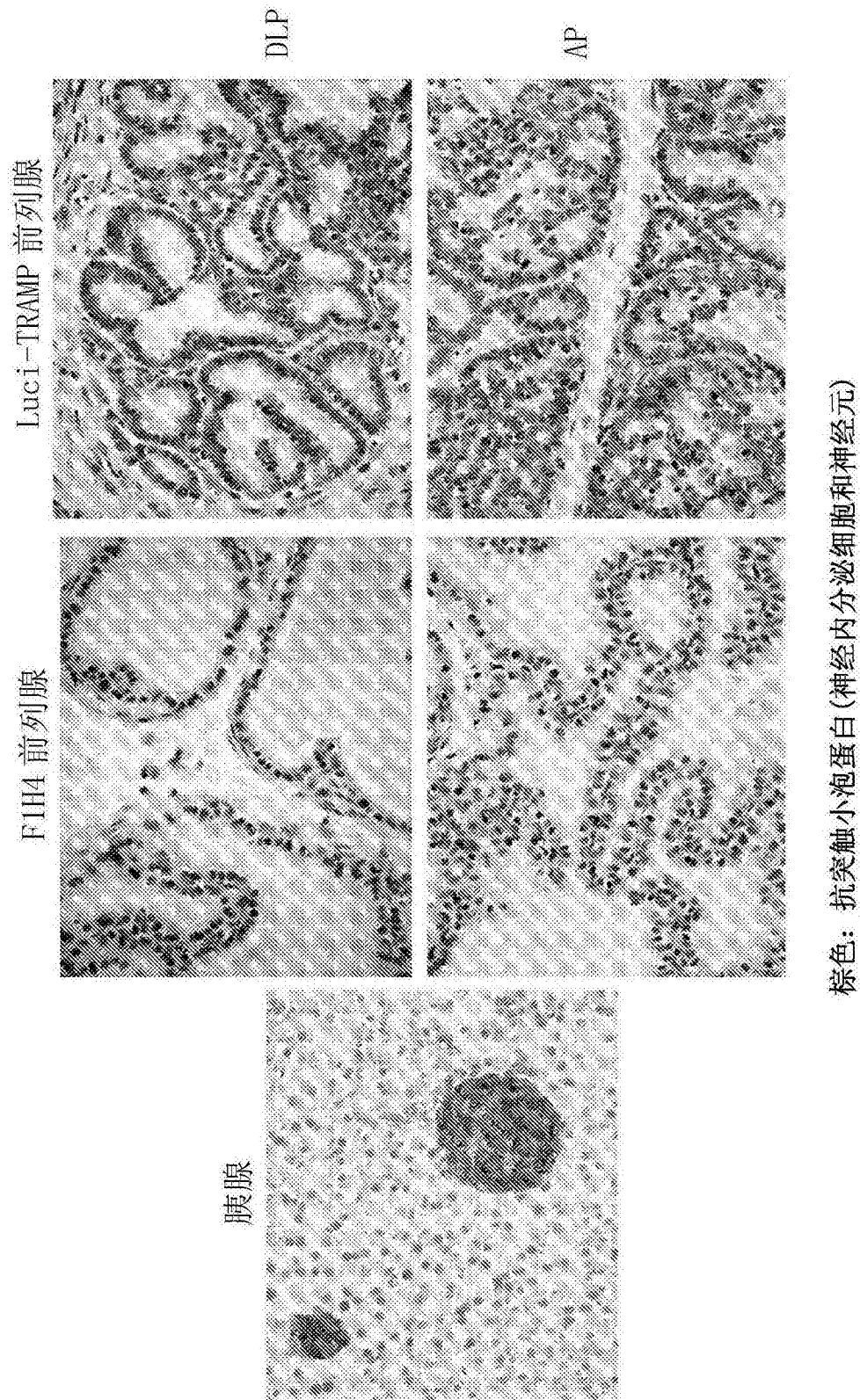


图5B