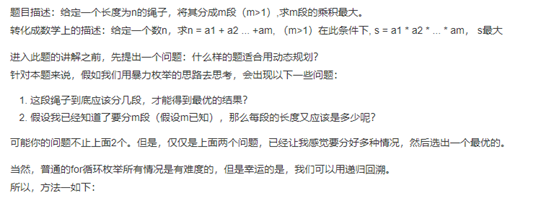
# 剪绳子I

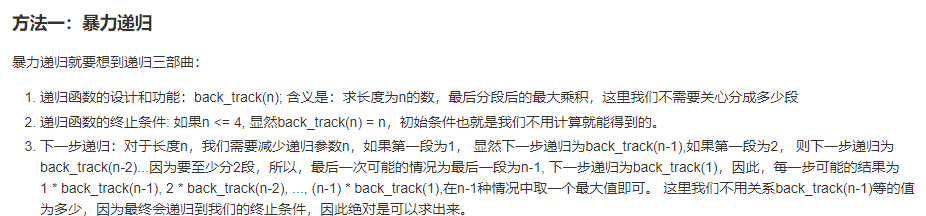
## 思路--递归--效率低

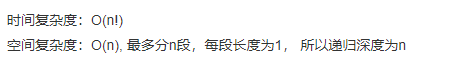
1--分几段???

2--每段多长???

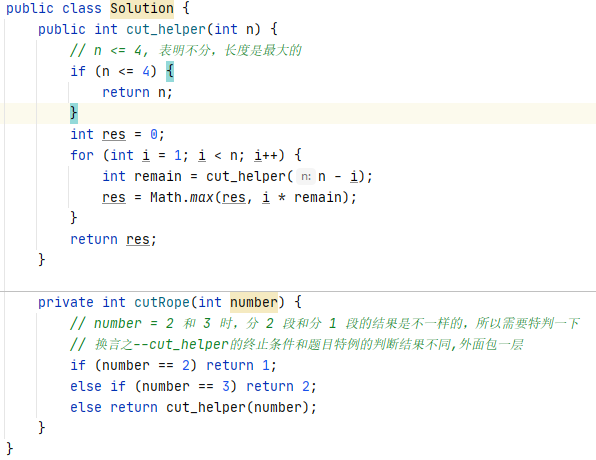


### 1--暴力递归

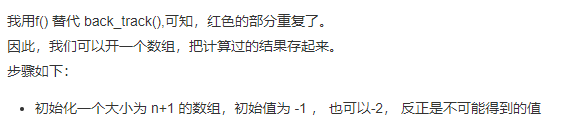
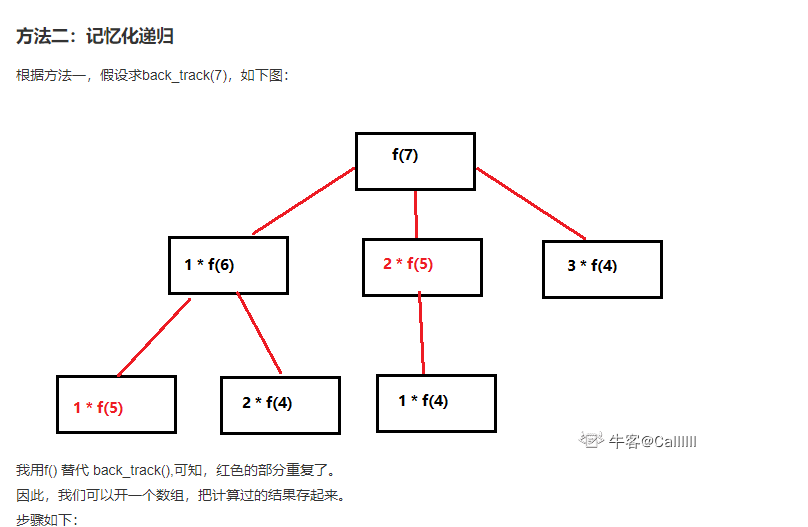




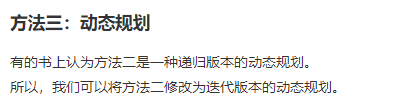
特殊情况的判断很复杂!!! 没有记忆化



### 2--记忆化递归



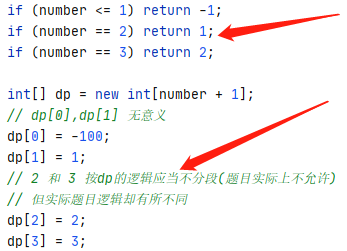
## 思路--dp

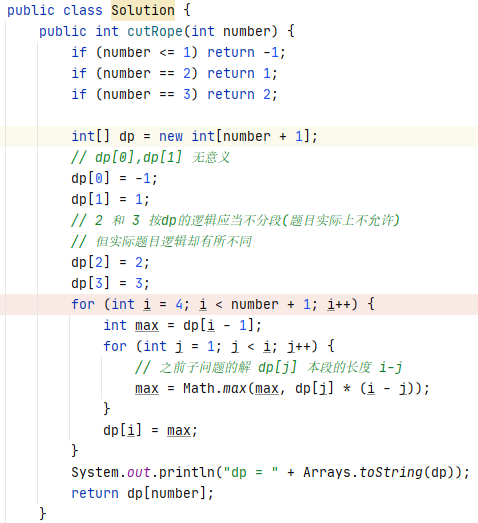


题目的**小坑**----之前递归版本代码也提到了,看下面这段注释:

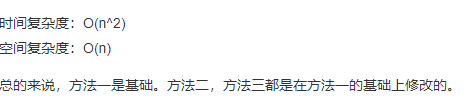
题目要求是 分段长度>1 在长度为2和3的时候先进行特殊判断

实际dp含义--dp[i] 长度为i 任意分段数(可以为1)条件下最大乘积





总结--此题比较有意思!

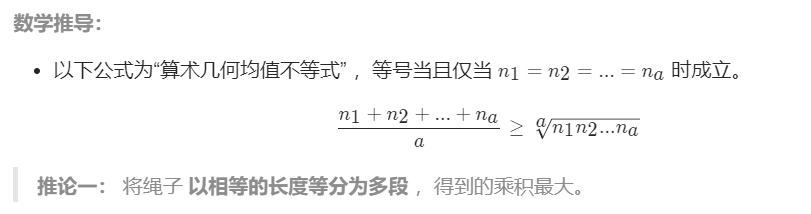


## 数学推导--必然可以降低时间复杂度O(n)

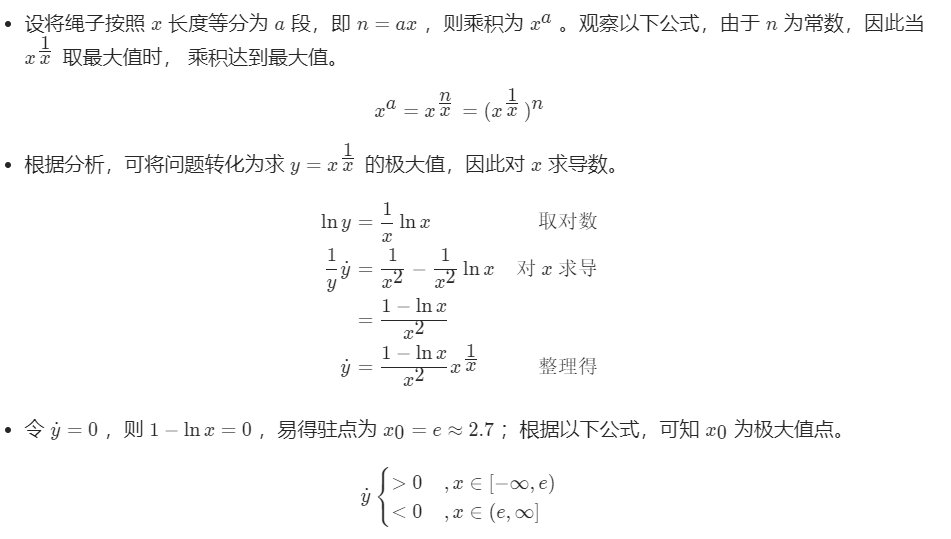
<https://leetcode-cn.com/problems/jian-sheng-zi-lcof/solution/mian-shi-ti-14-i-jian-sheng-zi-tan-xin-si-xiang-by/>

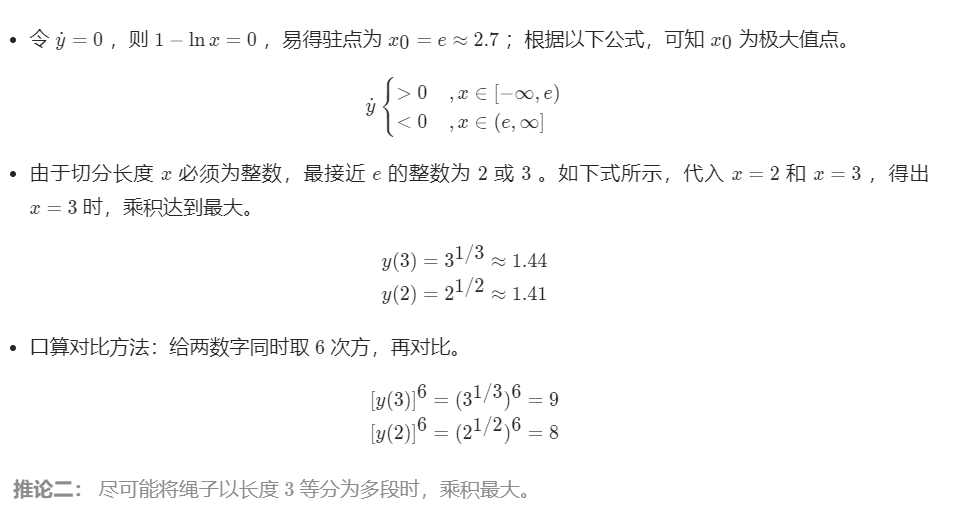


**推论1---**



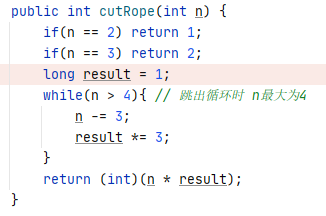
**推论2----**





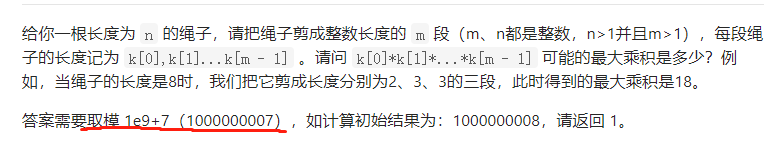
复杂度骤减!!!!!!

代码:



# 剪绳子II

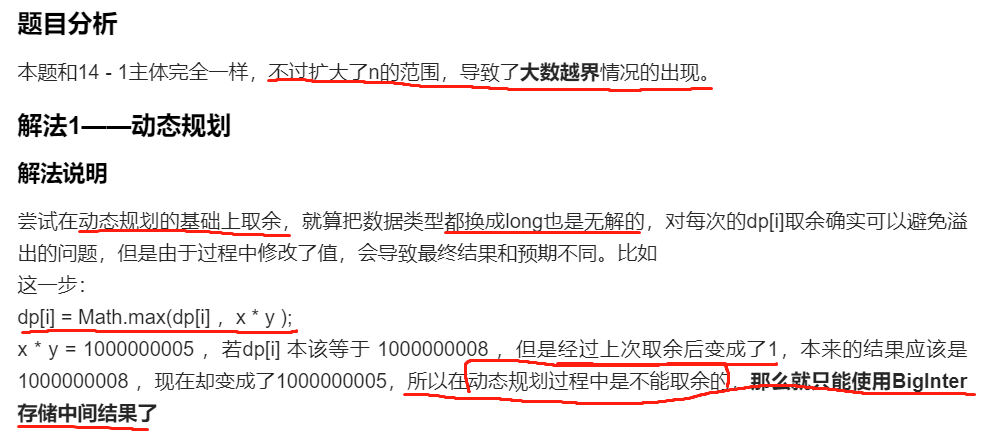
## 题目变化



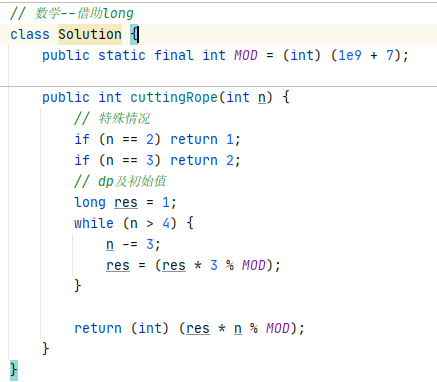
绳子长度n最大为1000

## 动态规划取模--有问题

<https://leetcode-cn.com/problems/jian-sheng-zi-ii-lcof/solution/di-zi-fen-xi-shi-yong-dong-tai-gui-hua-q-jlr7/>



## 数学推导--与第一问相同



**总结--第二问主要考察对大数(越界)的处理**