343. Integer Break

Difficulty Medium 369 114 Discuss(13) Favorite Share

Description Hints Solution Submissions

Given a positive integer *n*, break it into the sum of **at least** two positive integers and maximize the product of those integers. Return the maximum product you can get.

Example 1:

```
Input: 2
Output: 1
Explanation: 2 = 1 + 1, 1 × 1 = 1.
```

Example 2:

```
Input: 10
Output: 36
Explanation: 10 = 3 + 3 + 4, 3 × 3 × 4 = 36.
```

```java
public class L343 {

    /*
     * 这道题目和剪绳子是一样的题目
     */
     public int integerBreak(int n) {
            if(n < 2)
                return 0;
            if(n == 2)
                return 1;
            if(n == 3)
                return 2;
            int timeOf3 = n / 3;
            if(n - timeOf3 * 3 == 1)
                timeOf3 -= 1;

            int timeOf2 = (n - timeOf3 * 3) / 2;

            return (int)(Math.pow(3, timeOf3)) * (int)(Math.pow(2, timeOf2));
    }

}
```