Problem 343: Integer Break

Problem Information

Difficulty: Medium
Acceptance Rate: 61.56%
Paid Only: No
Tags: Math, Dynamic Programming

Problem Description

Given an integer `n`, break it into the sum of `k` **positive integers** , where `k >= 2`, and maximize the product of those integers.

Return _the maximum product you can get_.

Example 1:

Input: n = 2 **Output:** 1 **Explanation:** 2 = 1 + 1, 1 × 1 = 1.

Example 2:

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

Constraints:

* `2 <= n <= 58`

Code Snippets

C++:

```
class Solution {
public:
int integerBreak(int n) {
```

```
}
};
```

Java:

```
class Solution {
public int integerBreak(int n) {

}
}
```

Python3:

```
class Solution:
def integerBreak(self, n: int) -> int:
```