

# 343. Integer Break

## Difficulty : Medium

<https://leetcode.com/problems/integer-break>

Given an integer  $n$ , break it into the sum of  $k$  **positive integers**, where  $k \geq 2$ , and maximize the product of those integers.

Return *the maximum product you can get*.

### Example 1:

**Input:**  $n = 2$

**Output:** 1

**Explanation:**  $2 = 1 + 1$ ,  $1 \times 1 = 1$ .

### Example 2:

**Input:**  $n = 10$

**Output:** 36

**Explanation:**  $10 = 3 + 3 + 4$ ,  $3 \times 3 \times 4 = 36$ .

### Constraints:

- $2 \leq n \leq 58$