

1646. Get Maximum in Generated Array

Description

You are given an integer `n`. A **0-indexed** integer array `nums` of length `n + 1` is generated in the following way:

- `nums[0] = 0`
- `nums[1] = 1`
- `nums[2 * i] = nums[i]` when $2 \leq 2 * i \leq n$
- `nums[2 * i + 1] = nums[i] + nums[i + 1]` when $2 \leq 2 * i + 1 \leq n$

Return *the maximum integer in the array* `nums`.

Example 1:

Input: `n = 7`
Output: `3`
Explanation: According to the given rules:
`nums[0] = 0`
`nums[1] = 1`
`nums[(1 * 2) = 2] = nums[1] = 1`
`nums[(1 * 2) + 1 = 3] = nums[1] + nums[2] = 1 + 1 = 2`
`nums[(2 * 2) = 4] = nums[2] = 1`
`nums[(2 * 2) + 1 = 5] = nums[2] + nums[3] = 1 + 2 = 3`
`nums[(3 * 2) = 6] = nums[3] = 2`
`nums[(3 * 2) + 1 = 7] = nums[3] + nums[4] = 2 + 1 = 3`
Hence, `nums = [0,1,1,2,1,3,2,3]`, and the maximum is `max(0,1,1,2,1,3,2,3) = 3`.

Example 2:

Input: `n = 2`
Output: `1`
Explanation: According to the given rules, `nums = [0,1,1]`. The maximum is `max(0,1,1) = 1`.

Example 3:

Input: `n = 3`
Output: `2`
Explanation: According to the given rules, `nums = [0,1,1,2]`. The maximum is `max(0,1,1,2) = 2`.

Constraints:

- $0 \leq n \leq 100$

