

5561. Get Maximum in Generated Array

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You are given an integer  $n$ . An 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`.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Easy

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 3.

Example 2:

**Input:** `n = 2`  
**Output:** `1`  
**Explanation:** According to the given rules, the maximum between `nums[0]`, `nums[1]`, and `nums[2]` is 1.

Example 3:

**Input:** `n = 3`  
**Output:** `2`  
**Explanation:** According to the given rules, the maximum between `nums[0]`, `nums[1]`, `nums[2]`, and `nums[3]` is 2.

Constraints:

- $0 \leq n \leq 100$

JavaScript

```
1 /**
2  * @param {number} n
3  * @return {number}
4  */
5 var getMaximumGenerated = function(n) {
6
7 };
```