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 <= 2 * i <= n`
- `nums[2 * i + 1] = nums[i] + nums[i + 1]` when `2 <= 2 * i + 1 <= 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 <= n <= 100`

JavaScript

```
/**
 * @param {number} n
 * @return {number}
 */
const getMaximumGenerated = (n) => {
    if (n == 0) return 0;
    let nums = new Array(n + 1).fill(0);
    nums[1] = 1;
    for (i = 2; i <= n; i++) {
        if (i % 2 == 0) {
            nums[i] = nums[i / 2];
        } else {
            let idx = (i - 1) / 2;
            nums[i] = nums[idx] + nums[idx + 1];
        }
```

```
16      }
17      return Math.max.apply(Math, nums);
18  };
```

Custom Testcase Use Example Testcases

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Submission Result: Accepted (/submissions/detail/417922240/) More Details > (/submissions/detail/417922240/)

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