1802. Maximum Value at a Given Index in a Bounded Array

My Submissions (/contest/weekly-contest-233/problems/maximum-value-at-a-given-index-in-a-bounded-array/submissions/)

Back to Contest (/contest/weekly-contest-233/)

User Accepted:	1175
User Tried:	2213
Total Accepted:	1223
Total Submissions:	6573
Difficulty:	Medium

You are given three positive integers `n`, `index` and `maxSum`. You want to construct an array `nums` **(0-indexed)** that satisfies the following conditions:

- `nums.length == n`
- `nums[i]` is a **positive** integer where `0 <= i < n`.
- `abs(nums[i] - nums[i+1]) <= 1` where `0 <= i < n-1`.
- The sum of all the elements of `nums` does not exceed `maxSum`.
- `nums[index]` is **maximized**.

Return `nums[index]` of the constructed array.

Note that `abs(x)` equals `x` if `x >= 0`, and `-x` otherwise.

Example 1:

```
Input: n = 4, index = 2,  maxSum = 6
Output: 2
Explanation: The arrays [1,1,2,1] and [1,2,2,1] satisfy all the conditions. There are no other valid arrays with a larger value
```

Example 2:

```
Input: n = 6, index = 1,  maxSum = 10
Output: 3
```

Constraints:

- $1 <= n <= maxSum <= 10^9$
- `0 <= index < n`

Discuss (https://leetcode.com/problems/maximum-value-at-a-given-index-in-a-bounded-array/discuss)

JavaScript

```
/**
 * @param {number} n
 * @param {number} index
 * @param {number} maxSum
 * @return {number}
 */
var maxValue = function(n, index, maxSum) {

};
```