

6367. Find the Maximum Number of Marked Indices

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You are given a **0-indexed** integer array `nums`.

Initially, all of the indices are unmarked. You are allowed to make this operation any number of times:

- Pick two **different unmarked** indices `i` and `j` such that $2 * \text{nums}[i] \leq \text{nums}[j]$, then mark `i` and `j`.

Return the *maximum possible number of marked indices* in `nums` using the above operation any number of times.

Example 1:

Input: `nums = [3,5,2,4]`
Output: `2`
Explanation: In the first operation: pick `i = 2` and `j = 1`, the operation is allowed because $2 * \text{nums}[2] \leq \text{nums}[1]$. Then mark index 1 and 2. It can be shown that there's no other valid operation so the answer is 2.

Example 2:

Input: `nums = [9,2,5,4]`
Output: `4`
Explanation: In the first operation: pick `i = 3` and `j = 0`, the operation is allowed because $2 * \text{nums}[3] \leq \text{nums}[0]$. Then mark index 0 and 3. In the second operation: pick `i = 1` and `j = 2`, the operation is allowed because $2 * \text{nums}[1] \leq \text{nums}[2]$. Then mark index 1 and 2. Since there is no other operation, the answer is 4.

Example 3:

Input: `nums = [7,6,8]`
Output: `0`
Explanation: There is no valid operation to do, so the answer is 0.

Constraints:

- $1 \leq \text{nums.length} \leq 10^5$
- $1 \leq \text{nums}[i] \leq 10^9$

JavaScript

📄 ↺ ⚙️

```
1 const maxNumOfMarkedIndices = (a) => {
2   a.sort((x, y) => x - y);
3   let n = a.length, j = n - 1, res = 0;
4   for (let i = (n >> 1) - 1; i >= 0; i--) {
5     if (a[i] * 2 <= a[j]) {
6       res += 2;
7       j--;
8     }
9   }
10  return res;
11 };
```

☐ Custom Testcase

Use Example Testcases

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