5486. Minimum Cost to Cut a Stick

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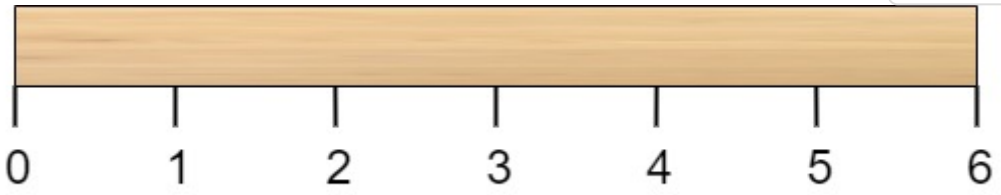
User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Hard

Given a wooden stick of length `n` units. The stick is labelled from `0` to `n`. For example, a stick of length **6** is labelled as follows:



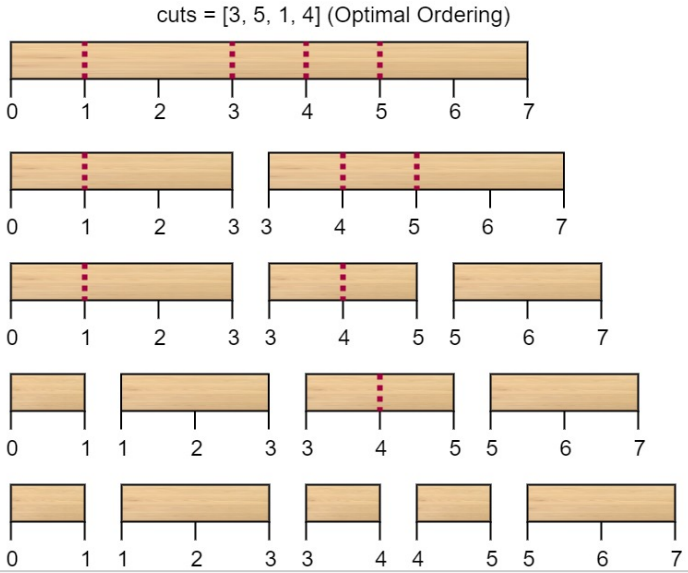
Given an integer array `cuts` where `cuts[i]` denotes a position you should perform a cut at.

You should perform the cuts in order, you can change the order of the cuts as you wish.

The cost of one cut is the length of the stick to be cut, the total cost is the sum of costs of all cuts. When you cut a stick, it will be split into two smaller sticks (i.e. the sum of their lengths is the length of the stick before the cut). Please refer to the first example for a better explanation.

Return *the minimum total cost* of the cuts.

Example 1:




```
Input: n = 7, cuts = [1,3,4,5]
Output: 16
Explanation: Using cuts order = [1, 3, 4, 5] as in the input leads to the following scenar
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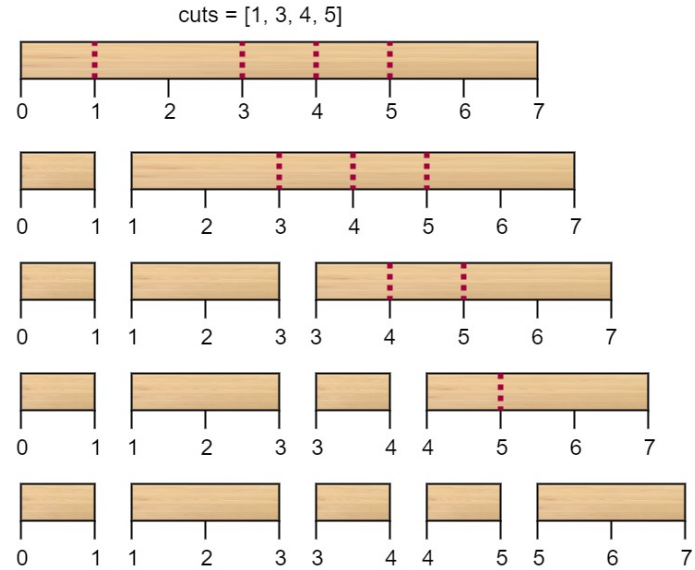


```
The first cut is done to a rod of length 7 so the cost is 7. The second cut is done to a r
Rearranging the cuts to be [3, 5, 1, 4] for example will lead to a scenario with total cos
```

Example 2:

```
Input: n = 9, cuts = [5,6,1,4,2]
Output: 22
Explanation: If you try the given cuts ordering the cost will be 25.
There are much ordering with total cost <= 25, for example, the order [4, 6, 5, 2, 1] has
```

Constraints:

- `2 <= n <= 10^6`
- `1 <= cuts.length <= min(n - 1, 100)`
- `1 <= cuts[i] <= n - 1`

- All the integers in `cuts` array are **distinct**.

JavaScript

```
/**
 * @param {number} n
 * @param {number[]} cuts
 * @return {number}
 */
var minCost = function(n, cuts) {

};
```

Custom Testcase Use Example Testcases

Run Submit