

# 492. Construct the Rectangle

## Description

A web developer needs to know how to design a web page's size. So, given a specific rectangular web page's area, your job by now is to design a rectangular web page, whose length  $L$  and width  $W$  satisfy the following requirements:

1. The area of the rectangular web page you designed must equal to the given target area.
2. The width  $W$  should not be larger than the length  $L$ , which means  $L \geq W$ .
3. The difference between length  $L$  and width  $W$  should be as small as possible.

Return *an array*  $[L, W]$  *where*  $L$  *and*  $W$  *are the length and width of the web page you designed in sequence.*

### Example 1:

**Input:** area = 4

**Output:** [2,2]

**Explanation:** The target area is 4, and all the possible ways to construct it are [1,4], [2,2], [4,1].

But according to requirement 2, [1,4] is illegal; according to requirement 3, [4,1] is not optimal compared to [2,2]. So the length  $L$  is 2, and the width  $W$  is 2.

### Example 2:

**Input:** area = 37

**Output:** [37,1]

### Example 3:

**Input:** area = 122122

**Output:** [427,286]

### Constraints:

- $1 \leq \text{area} \leq 10^7$

