

## 492. Construct the Rectangle

*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:

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