

# Problem 1240: Tiling a Rectangle with the Fewest Squares

## Problem Information

Difficulty: **Hard**

Acceptance Rate: 54.60%

Paid Only: No

Tags: Backtracking

## Problem Description

Given a rectangle of size  $n \times m$ , return the minimum number of integer-sided squares that tile the rectangle.

**Example 1:**



**Input:**  $n = 2, m = 3$  **Output:** 3 **Explanation:** 3 squares are necessary to cover the rectangle. 2 (squares of  $1 \times 1$ ) 1 (square of  $2 \times 2$ )

**Example 2:**



**Input:**  $n = 5, m = 8$  **Output:** 5

**Example 3:**



**Input:**  $n = 11, m = 13$  **Output:** 6

**Constraints:**

\*`1 <= n, m <= 13`

## Code Snippets

### C++:

```
class Solution {  
public:  
    int tilingRectangle(int n, int m) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int tilingRectangle(int n, int m) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def tilingRectangle(self, n: int, m: int) -> int:
```