

Problem 3200: Maximum Height of a Triangle

Problem Information

Difficulty: Easy

Acceptance Rate: 43.84%

Paid Only: No

Tags: Array, Enumeration

Problem Description

You are given two integers `red` and `blue` representing the count of red and blue colored balls. You have to arrange these balls to form a triangle such that the 1st row will have 1 ball, the 2nd row will have 2 balls, the 3rd row will have 3 balls, and so on.

All the balls in a particular row should be the **same** color, and adjacent rows should have **different** colors.

Return the **maximum** `_height of the triangle_` that can be achieved.

Example 1.

Input: `red = 2, blue = 4`

Output: `3`

Explanation.




The only possible arrangement is shown above.

Example 2.

Input: `red = 2, blue = 1`

Output: 2

Explanation:

 (https://assets.leetcode.com/uploads/2024/06/16/br.png) The only possible arrangement is shown above.

Example 3:

Input: red = 1, blue = 1


Output: 1

Example 4:

Input: red = 10, blue = 1

Output: 2

Explanation:

 (https://assets.leetcode.com/uploads/2024/06/16/br.png) The only possible arrangement is shown above.

Constraints:

$1 \leq \text{red}, \text{blue} \leq 100$

Code Snippets

C++:

```
class Solution {
public:
    int maxHeightOfTriangle(int red, int blue) {

    }
};
```

Java:

```
class Solution {  
    public int maxHeightOfTriangle(int red, int blue) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def maxHeightOfTriangle(self, red: int, blue: int) -> int:
```