

# Problem 441: Arranging Coins

## Problem Information

**Difficulty:** Easy

**Acceptance Rate:** 47.74%

**Paid Only:** No

**Tags:** Math, Binary Search

## Problem Description

You have  $n$  coins and you want to build a staircase with these coins. The staircase consists of  $k$  rows where the  $i$ th row has exactly  $i$  coins. The last row of the staircase **may be** incomplete.

Given the integer  $n$ , return **the number of complete rows** of the staircase you will build.

**Example 1:**



**Input:**  $n = 5$  **Output:** 2 **Explanation:** Because the 3rd row is incomplete, we return 2.

**Example 2:**



**Input:**  $n = 8$  **Output:** 3 **Explanation:** Because the 4th row is incomplete, we return 3.

**Constraints:**

$1 \leq n \leq 2^{31} - 1$

## Code Snippets

**C++:**

```
class Solution {  
public:  
    int arrangeCoins(int n) {  
  
    }  
};
```

**Java:**

```
class Solution {  
    public int arrangeCoins(int n) {  
  
    }  
}
```

**Python3:**

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