441 Arranging Coins

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You have a total of *n* coins that you want to form in a staircase shape, where every *k*-th row must have exactly *k* coins.

Given *n*, find the total number of **full** staircase rows that can be formed.

n is a non-negative integer and fits within the range of a 32-bit signed integer.

Example 1:

n = 5

The coins can form the following rows:

¤

¤ ¤

¤ ¤

Because the 3rd row is incomplete, we return 2.

Example 2:

n = 8

The coins can form the following rows:

¤

¤ ¤

¤ ¤ ¤

¤ ¤

Because the 4th row is incomplete, we return 3.

来自 <https://leetcode.com/problems/arranging-coins/description/>

你总共有 *n* 枚硬币，你需要将它们摆成一个阶梯形状，第 *k* 行就必须正好有 *k* 枚硬币。

给定一个数字 *n*，找出可形成完整阶梯行的总行数。

n 是一个非负整数，并且在32位有符号整型的范围内。

Solution for Python3:

```
class Solution:
    def arrangeCoins(self, n):
        """
        :type n: int
        :rtype: int
        """
        import math
```

```
8           return math.floor(math.sqrt(2 * n + 0.25) -
  0.5)
```

Solution for C++:

```
1  class Solution {
2  public:
3      int arrangeCoins(int n) {
4          return floor(sqrt((double)2 * n + 0.25) -
5  0.5);
6      }
   };
```