

633 Sum of Square Numbers

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Given a non-negative integer c , your task is to decide whether there're two integers a and b such that $a^2 + b^2 = c$.

Example 1:

Input: 5

Output: True

Explanation: $1 * 1 + 2 * 2 = 5$

Example 2:

Input: 3

Output: False

来自 <<https://leetcode.com/problems/sum-of-square-numbers/description/>>

给定一个非负整数 c ，你要判断是否存在两个整数 a 和 b ，使得 $a^2 + b^2 = c$ 。

示例1:

输入: 5

输出: True

解释: $1 * 1 + 2 * 2 = 5$

示例2:

输入: 3

输出: False

Solution for Python3:

```
1 class Solution1:
2     def judgeSquareSum(self, c):
3         """
4         :type c: int
5         :rtype: bool
6         """
7         for i in range(int(math.sqrt(c)) + 1):
8             t = math.sqrt(c - i * i)
9             if t == int(t):
10                 return True
11         return False
```

Solution for C++:

```
1  class Solution1 {
2  public:
3      bool judgeSquareSum(int c) {
4          double t;
5          for (int i = 0; i <= sqrt(c) + 1; i++) {
6              t = sqrt(c - i * i);
7              if (t == int(t))
8                  return true;
9          }
10         return false;
11     }
12 };
```