

Problem 367: Valid Perfect Square

Problem Information

Difficulty: Easy

Acceptance Rate: 44.53%

Paid Only: No

Tags: Math, Binary Search

Problem Description

Given a positive integer num, return `true` if `num` is a perfect square or `false` otherwise.

A **perfect square** is an integer that is the square of an integer. In other words, it is the product of some integer with itself.

You must not use any built-in library function, such as `sqrt`.

Example 1:

Input: num = 16 **Output:** true **Explanation:** We return true because $4 * 4 = 16$ and 4 is an integer.

Example 2:

Input: num = 14 **Output:** false **Explanation:** We return false because $3.742 * 3.742 = 14$ and 3.742 is not an integer.

Constraints:

$1 \leq \text{num} \leq 2^{31} - 1$

Code Snippets

C++:

```
class Solution {  
public:  
    bool isPerfectSquare(int num) {  
  
    }  
};
```

Java:

```
class Solution {  
    public boolean isPerfectSquare(int num) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def isPerfectSquare(self, num: int) -> bool:
```