Problem 374: Guess Number Higher or Lower

Problem Information

Difficulty: Easy
Acceptance Rate: 56.62%
Paid Only: No
Tags: Binary Search, Interactive

Problem Description

We are playing the Guess Game. The game is as follows:

I pick a number from `1` to `n`. You have to guess which number I picked (the number I picked stays the same throughout the game).

Every time you guess wrong, I will tell you whether the number I picked is higher or lower than your guess.

You call a pre-defined API `int guess(int num)`, which returns three possible results:

* `-1`: Your guess is higher than the number I picked (i.e. `num > pick`). * `1`: Your guess is lower than the number I picked (i.e. `num < pick`). * `0`: your guess is equal to the number I picked (i.e. `num == pick`).

Return _the number that I picked_.

Example 1:

Input: n = 10, pick = 6 **Output:** 6

Example 2:

Input: n = 1, pick = 1 **Output:** 1

Example 3:

Input: n = 2, pick = 1 **Output:** 1

Constraints:

* `1 <= n <= 231 - 1` * `1 <= pick <= n`

Code Snippets

C++:

```
/**
* Forward declaration of guess API.
* @param num your guess
* @return -1 if num is higher than the picked number
* 1 if num is lower than the picked number
* otherwise return 0
* int guess(int num);
*/

class Solution {
public:
int guessNumber(int n) {

}
};
```

Java:

```
/**
* Forward declaration of guess API.
* @param num your guess
* @return -1 if num is higher than the picked number
* 1 if num is lower than the picked number
* otherwise return 0
* int guess(int num);
*/

public class Solution extends GuessGame {
public int guessNumber(int n) {
```

```
}
}
```

Python3:

```
# The guess API is already defined for you.
# @param num, your guess
# @return -1 if num is higher than the picked number
# 1 if num is lower than the picked number
# otherwise return 0
# def guess(num: int) -> int:

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