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Java ▾   Autocomplete

374. Guess Number Higher or Lower

Easy   👍 746   👎 118   ♡ Add to List   �📤 Share

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.

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:

- $1 <= n <= 2^{31} - 1$
- `1 <= pick <= n`

```java
1    /**
2     * Forward declaration of guess API.
3     * @param  num   your guess
4     * @return       -1 if num is higher than the picked number
5     *                1 if num is lower than the picked number
6     *               otherwise return 0
7     * int guess(int num);
8     */
9
10   public class Solution extends GuessGame {
11
12       public int guessNumber(int n) {
13
14           int start = 1;
15           int end = n;
16
17           while(start <= end){
18
19               int mid = start + (end - start) / 2;
20
21               if(guess(mid) == 0)
22                   return mid;
23               else if(guess(mid) == 1)
24                   start = mid + 1;
25               else
26                   end = mid - 1;
27           }
28
29           return -1;
30       }
31   }
```

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