

## **374. Guess Number Higher or Lower**

*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.  $\text{num} > \text{pick}$ ).
- **1:** Your guess is lower than the number I picked (i.e.  $\text{num} < \text{pick}$ ).
- **0:** your guess is equal to the number I picked (i.e.  $\text{num} == \text{pick}$ ).
- Return the number that I picked.

### **Example 1:**

- **Input:**  $n = 10$ ,  $\text{pick} = 6$
- **Output:** 6

### **Example 2:**

- **Input:**  $n = 1$ ,  $\text{pick} = 1$
- **Output:** 1

### **Example 3:**

- **Input:**  $n = 2$ ,  $\text{pick} = 1$
- **Output:** 1

### **Constraints:**

- $1 \leq n \leq 2^{31} - 1$
- $1 \leq \text{pick} \leq n$