# 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. 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.

## SOLUTION IN C++

class Solution {

public:

int guessNumber(int n) {

int l = 1;

int r = n;

while (l < r) {

const int m = l + (r - l) / 2;

if (guess(m) <= 0) // -1, 0

r = m;

else

l = m + 1;

}

return l;

}

};