Number of steps to reduce a number to zero

Share

Given a non-negative integer `num`, return the number of steps to reduce it to zero. If the current number is even, you have to divide it by 2, otherwise, you have to subtract 1 from it.

Example 1:

```
Input: num = 14

Output: 6

Explanation:

Step 1) 14 is even; divide by 2 and obtain 7.

Step 2) 7 is odd; subtract 1 and obtain 6.

Step 3) 6 is even; divide by 2 and obtain 3.

Step 4) 3 is odd; subtract 1 and obtain 2.

Step 5) 2 is even; divide by 2 and obtain 1.

Step 6) 1 is odd; subtract 1 and obtain 0.
```

Example 2:

```
Input: num = 8

Output: 4

Explanation:

Step 1) 8 is even; divide by 2 and obtain 4.

Step 2) 4 is even; divide by 2 and obtain 2.

Step 3) 2 is even; divide by 2 and obtain 1.

Step 4) 1 is odd; subtract 1 and obtain 0.
```

Example 3:

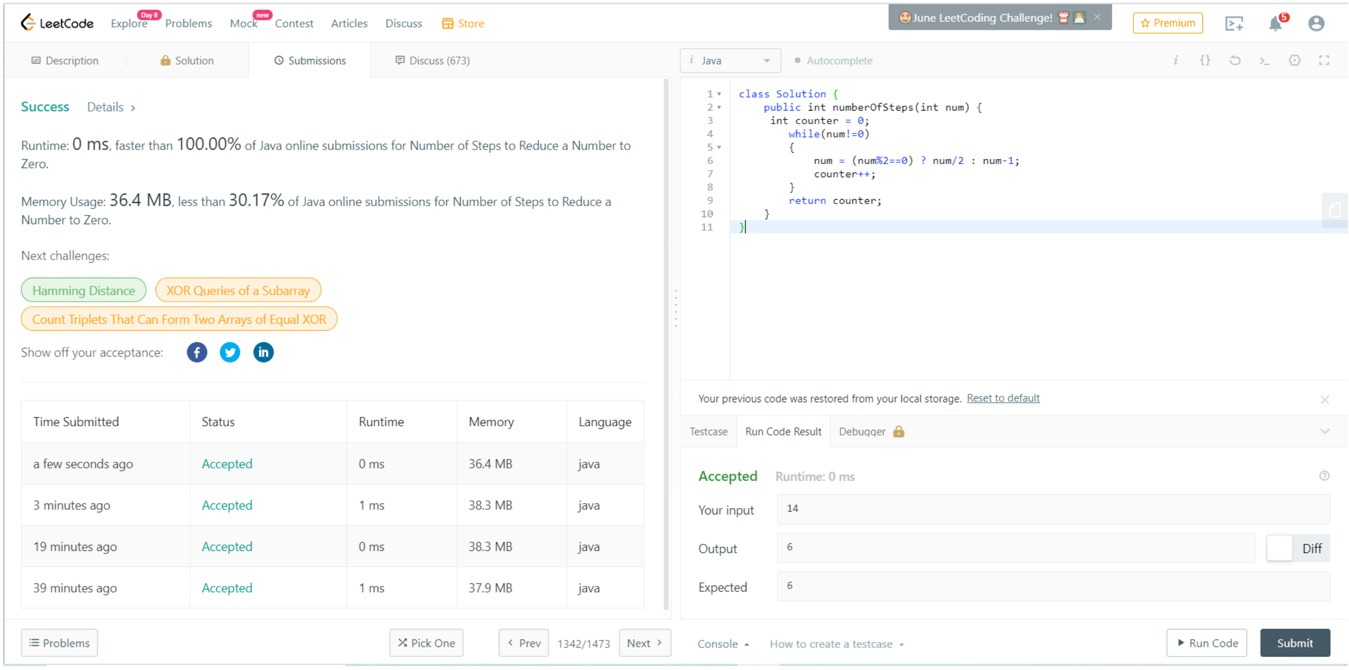
```
Input: num = 123

Output: 12
```

Constraints:

- `0 <= num <= 10^6`

Solution:

```
class Solution {
    public int numberOfSteps(int num) {
     int counter = 0;
        while(num!=0)
        {
            num = (num%2==0) ? num/2 : num-1;
            counter++;
        }
        return counter;
    }
}
```



Success Details ›

Runtime: 0 ms, faster than 100.00% of Java online submissions for Number of Steps to Reduce a Number to Zero.

Memory Usage: 36.4 MB, less than 30.17% of Java online submissions for Number of Steps to Reduce a Number to Zero.

Next challenges:

Hamming Distance

XOR Queries of a Subarray

Count Triplets That Can Form Two Arrays of Equal XOR

Show off your acceptance:

Time Submitted	Status	Runtime	Memory	Language
a few seconds ago	Accepted	0 ms	36.4 MB	java
3 minutes ago	Accepted	1 ms	38.3 MB	java
19 minutes ago	Accepted	0 ms	38.3 MB	java
39 minutes ago	Accepted	1 ms	37.9 MB	java

```
class Solution {
    public int numberOfSteps(int num) {
     int counter = 0;
        while(num!=0)
        {
            num = (num%2==0) ? num/2 : num-1;
            counter++;
        }
        return counter;
    }
}
```

Your previous code was restored from your local storage. Reset to default

Accepted Runtime: 0 ms

Your input: 14

Output: 6

Expected: 6