

Palindrome number

Companies :

Given an integer `x`, return `true` if `x` is palindrome integer.

An integer is a palindrome when it reads the same backward as forward.

- For example, `121` is a palindrome while `123` is not.

Example 1:

Input: `x = 121`

Output: `true`

Explanation: `121` reads as `121` from left to right and from right to left.

Example 2:

Input: `x = -121`

Output: `false`

Explanation: From left to right, it reads `-121`. From right to left, it becomes `121-`. Therefore it is not a palindrome.

Example 3:

Input: `x = 10`

Output: `false`

Explanation: Reads `01` from right to left. Therefore it is not a palindrome.

Constraints:

- $-2^{31} \leq x \leq 2^{31} - 1$

Code :

```
class Solution {  
  
public:  
  
    bool isPalindrome(int x)  
  
    {  
  
        //negative can't be palindrome  
  
        if(x < 0 || (x != 0 && x % 10 == 0))  
  
        {  
  
            return false;  
  
        }  
  
        //reverse the integer  
  
        int rev=0;  
  
        while(x>rev)  
  
        {  
  
            //rem = x%10;  
  
            //rev =rev*10+rem;  
  
            //x/=10;  
  
            rev = (rev * 10) + (x % 10);  
  
            x/=10;  
  
        }  
  
        //if reverse and original is same then its palindrome otherwise not
```

```
    if(x==rev || rev/10==x)

    {

        return true;

    }

    else

    {

        return false;

    }

}

};
```

Approaches :

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1. Using to_string function
2. Simply reverse the number and check if it matches to original or not

I used 2nd approach :

Step - 1 : check if number is negative not zero(test case) and modulo 10 returns 0(test case) then it returns false

Step - 2 : simply reverse it.

Step -3 : if original and rev is match then it is palindrome and if odd number divide by 10 returns original number then its is true otherwise false.