

Palindrome number

Given an integer x, return true if x is a , and false otherwise.

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.

This is surprisingly easy in Python first thing we do is eliminate any negative numbers

```
if x < 0:  
    return False
```

Next we convert the numbers into a string and use python slicing to reverse the string

```
else:  
    x = str(x)  
    if x == x[::-1]:  
        return True  
    else:  
        return False
```

The slicing is a bit difficult to understand at first but once you understand it becomes handy in a lot of projects you do to say the least and has helped me with my human language technology project for creating a regular expression parser.

But essentially it is taken into 3 parameters [start:stop:step] so when the first two parameters are empty the -1 means step backwards through the sequence so this if statement matches if x is equal to x[::-1] or 121 is equal to 121 which would return true. If you wish to test the code for yourself play with these values

```
if __name__ == '__main__':  
    x = 121 #Is a Palindrome  
    y = -121 #Not a palindrome  
    s = Solution()  
    print(s.isPalindrome(x))  
    print(s.isPalindrome(y))
```

Happy Coding 😊