

Prompt

Scratchpad

Our Solution(s)

Video Explanation

**Difficulty:** ■ **Category:** Strings **Successful Submissions:** 50,669+

## Palindrome Check ○ ☆

Write a function that takes in a non-empty string and that returns a boolean representing whether the string is a palindrome.

A palindrome is defined as a string that's written the same forward and backward. Note that single-character strings are palindromes.

### Sample Input

```
string = "abcdcba"
```

### Sample Output

```
true // it's written the same forward and backward
```

## Hints

### Hint 1 ▲

Start by building the input string in reverse order and comparing this newly built string to the input string. Can you do this without using string concatenations?

### Hint 2 ▲

Can you optimize your algorithm by using recursion? What are the implications of recursion on an algorithm's space-time complexity analysis?

### Hint 3



Go back to an iterative solution and try using pointers to solve this problem: start with a pointer at the first index of the string and a pointer at the final index of the string. What can you do from there?

### Optimal Space & Time Complexity



$O(n)$  time |  $O(1)$  space - where  $n$  is the length of the input string