

Programming Exam Choice 8

Start by downloading the question 8 files from the moodle into a new directory on your machine. You will be changing the code in the question8.cpp file. You have a Makefile to handle building this code.

Part 1. 5 points

Palindromes are words that read the same forwards or backwards, like “level” or “deified”.

Complete this function to tell if a string is a palindrome, using a loop. You may assume the string is not empty for this question. If the string is one letter long, return true. Else, return true if the string reads the same backwards and forwards.

```
bool is_palindrome(const string& s)
{

}
```

Part 2. 5 points

Complete this function to tell if a string is a palindrome, using recursion. You may assume the string is not empty for this question. If the string is one letter long, return true. Else, return true if the string reads the same backwards and forwards. Notice that the first call to this function in your test code sets start to the index of the first letter, and end to the index of the last letter.

```
bool is_palindrome_recursive(const string& s, unsigned int start, unsigned int end)
{
    if ( _____ )    // base case
    {

    }

    // recursive call
}
```

Your TA will grade anything you have ready before the deadline, but upload your code to the moodle anyway.

Logic of problem laid out in comments:	50%
Code compiles with no errors or warnings:	10%
Code has no run time errors:	10%
Code gives correct answers for all inputs:	20%
Code is clean and easy to read:	10%