Problems to solve 5 are using functions, arrays, pointers, and strings.

1. Write a program that uses getchar() to read characters and creates a string with more than 5 characters and less than 50. If the user enters a number of characters out of this interval, the insertion of characters should be repeated.

2. Write a C program to read a string of less than 50 characters and displays a message to indicate if it is a palindrome, which means if it can be read the same in either direction. For example, the string level is a palindrome, since it is read the same in both directions.

3. Create a C program to declare a ptr pointer to int, using an increment of `ptr++` to makeit point to the fifth character of the string. In `printf(),` since the type of `ptr` is cast to `char*,` the C program is to display the part of the string from the ninth character and on. Since the ninth character is the null character, the program displays nothing.

4. Write a C program to read a string of less than 50 characters, and if it is less than three characters, the user is to enter a new one. Next, the C program is to read a character and check if the string contains the input character two times in a row. The C program is to display the position of the first double found.

5. Write a C program to read continuously strings (less than 50 characters each). The program is to copy each input string in a second string variable after replacing each single '*' with a double '*', and the lowercase letters with uppercase letters and vice versa. The program is to display the second string and its number of lowercase and uppercase letters. If the user enters end, the input of strings is to terminate.