Function (Solve all the following problems using function):

1. Write a C program to find power x of an integer N (N^x), where N, x are integer numbers ($N,\ x \in Z$).
2. Write a C program to find the maximum among three numbers and write another function to find the minimum of these three numbers.
3. Write a C program that has a function to find the maximum between two numbers and **use that function** to find the maximum among three numbers.
4. Write a C program to swap and print the values of two variables.
5. Write a C program to swap and print the values of two variables (without using any extra variables).
6. Write a C program to find the N^{th}.prime number.
7. Write a C program to find all prime numbers between two numbers **using a function that returns 1 if the given input integer is a prime number, 0 otherwise**.
8. Write a C program to calculate the sum of **n** numbers coming from the console.
9. Write a C program to convert a number **N** in source base **s** to its equivalent number in destination base **d**.

Recursive Function (Solve all the following problems using recursion)

10. Write a C program to print the numbers from 1 to N.
11. Write a C program to print the even or odd numbers in a given range [M, N].
12. Write a C program to calculate the sum of numbers from 1 to N.
13. Write a C program to find power x of an integer N (N^x), where N, x are integer numbers ($N,\ x \in Z$).
14. Take an integer N as input and find its factorial ($N!$).
15. Write a C program to count the number of digits of a number N.
16. Write a C program to print the reverse of a number N.
17. Write a C program to generate the reverse of a number N.
18. Write a C program to find the GCD of two numbers.
19. Write a C program to find the LCM of two numbers.
20. Write a C program that takes as input a positive integer n and outputs the number of proper divisors of n.
21. Write a C program to find the N^{th} fibonacci number. Assume that the fibonacci series starts with 0, 1, 1, 2, 3….

22. Write a C program to find the power of two present in a number.
23. Write a C program to count the number of zeros present in a number N.
24. Write a C program to remove the zeros present in a number N and generate the modified number.