

1. Write a program in C to swap two numbers using function.
2. Write a program in C to check a given number is even or odd using the function.
3. Write a program in C to check whether a number is a prime number or not using the function
4. Ask user to enter a number and print its factorial using functions.
5. Ask user to enter two numbers and find their power using functions.
6. Ask user to enter a number and find its square root using functions.
7. Ask user to enter two numbers and find their GCD.
8. Ask user to enter two numbers and find their LCM.
9. Ask user to enter number of rows and print Pascal's triangle using functions. Use formula

$$\frac{n!}{k!(n-k)!}$$

Where n is row number, starting at 0 and k is column number starting at 0.

10. **Perfect number**, a positive integer that is equal to the sum of its divisors excluding itself. The smallest **perfect number** is 6, which is the sum of 1, 2, and 3. Other **perfect numbers** are 28, 496, and 8,128. Create a function which receives upper and lower limit (e.g., 1, 1000) and print all perfect numbers between the entered range.
11. Write a program to implement calculator using functions. Input from user and output should be performed in main program, whereas all operations like sum, multiply etc should be performed in functions. Input values should be passed from main program to function and result should be returned from function to main program for printing.