C++ Functions Lab 'B', 'C' 28-12-2022

(Any four as part of Lab)

1.	Write a menu-driven program that allows a user to enter three numbers and then choose between finding the smallest, largest, sum, or average. The menu and all the choices **are to be functions**. Use a switch statement to determine what action to take. Provide an error message if an invalid choice is entered.
2.	Write a program which will ask the user to enter his/her marks (out of 100). Define **a function** that will display grades according to the marks entered as below: Marks Grade 91-100 S 81-90 A 71-80 B 61-70 C 51-60 D 41-50 E <=40 Fail
3.	Raising a number to a power p is the same as multiplying n by itself p times. Code **a function** called power that takes two arguments, a double value for n and an int value for p, and return the result as double value. Use default argument of 2 for p, so that if this argument is omitted the number will be squared. Write the main function that gets value from the user to test power function.
4.	Given 3-angles as parameters, Code a **function** to check whether they form a triangle or not (A+B+C =180). If yes check whether triangle is scalen, equilateral, isoceless or right angled triangle.
5.	Code a **function** that receives two numbers as an argument and display all prime numbers between these two numbers.
6.	Write a C++ program to accept a number and find sum of its individual digits repeatedly till the result is a single digit. For example, if the given number is 4687 the output should be 7. (use **function**)
7.	Code to print the multiplication table as below for number 1 to 5. Print the **numbers in words till 20 only**, after that print the numbers only. (**Use function**) One ones are one One twos are two …….. ….. Two sixs are twelve ….. Two tens are **twenty** …. Three sevens are **21** Three eights are **24** …… Five tens are **50**.
8.	Convert some of the programs which you have already executed into collection of functions and call them using a main function.