1. Write a C++ program to take five float variables as input from the user. Find out the summation and average of five numbers and check whether the average is an even number or an odd number.

2. Write a C++ program which takes a year as input from the user. Afterwards, it checks if the year is a valid year or not (1800-2023). If the year is a valid year, then it will find out whether the year is a leap year or not.

3. Write a C++ program which will take a number as input then it will check whether the number is an integer number or a float number.

4. Write a C++ program that takes an integer variable, Z and computes the result of $Z^5 + Z^7 + Z^9 + Z^4 - Z^3 * Z^2$. Do not use any built-in function.

5. Write a C++ program that has two variables, Base and Height and it computes the area of a triangle. Afterwards, it checks whether the area is an even number or an odd number.

6. Implement a C++ program to check whether a **number** is divisible **by 2, 5 and 11** or not. Show the use of 'OR Operator' and 'AND Operator' in the program if necessary.

7. Take a character as input through the keyboard. Write a program to find out whether the gender is Male or Female. (Using If-else and switch case)
   Inputs: take input 'M' or 'm' for male and take input 'F' or 'f' for female. For any other input, the result will show "Undefined".

8. Write a C++ program for a photocopy shop. In that shop, the charge for one page photocopy is 2.35 TAKA. Now ask the customer how many pages the user wants to photocopy, then print the total amount. Afterwards, if the customer's total cost is greater than 100 taka then the customer will get 4% discount on his/her total cost.