Practice Problems

Set-1

1. Consider the grading of the students in an academic institution. The grading is according to the following rules.

Average marks (m)	Grade
$80 \leq m \leq 100$	A
$60 \leq m < 80$	B
$50 \leq m < 60$	C
$40 \leq m < 50$	D
$0 \leq m < 40$	F

Now, write a C program that takes as input the average marks of any student and prints his/her grade as per the given rule. [Take help of *else if ladder*.]

2. Write a program to determine whether a given number x is odd or even, and print the message "The number x is ODD" or "The number x is EVEN", accordingly.

3. Find the Roots of a quadratic equation: $ax^2 + bx + c = 0$

Coefficients (a, b, c) are your inputs.

4. Solve the problem-1 using **switch case**.

5. Write a C program that can convert a decimal number to its binary form.

6. Rewrite the factorial computation program using ***for* loop** and by ***decrementing count***.

7. Write a program to print the following outputs using *for* loop

(a) ****   (b)   1
    ***   2 2
    **   3 3 3
    *   4 4 4 4

8. Write a C program to evaluate $cosx = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!}....$, to 0.001% accuracy

9. Write a C program to find the sum of the digits of a number. Assume the number to be a natural number..