Task 2.1

1. Accept the values of three variables a, b and c, write a program to compute and displays the value of X, where

$$X = \frac{a}{b-c}$$

Execute your program for the following values:

(a) a = 250, b= 85, c= 25

(b) a = 300, b= 70, c=70

2. Area of Triangle is given by the formula:

A= $\sqrt{S(S-a)(S-b)(S-c)}$

Where a, b, and c are sides of the triangle and 2S = a + b + c. Write a program to compute the area of the triangle by taking the values of a, b, and c from user.

3. Distance between two points (x_1,y_1) and (x_2,y_2) is governed by the formula :

$$D^2 = (x_2 - x_1)^2 + (y_2 - y_1)^2$$

Write a program to compute D by taking the value of all coordinates by user.

4. Write a program to determine and print the sum of the following harmonic series for a given values of n:

1 + 1/2 + 1/3 + ……. + 1/n

The value of n should be given by user, for more about harmonic series revise the concept through internet or math books.

5. Write a program to accept the price of an item in float (E.G. 15.95) and print the output in paisa (like 1595 paisa).

6. Write a program to convert the number of days taken by user into months and days , for example user has entered 265 days than the output will be Months = 8 , Days = 25.

7. Write a program to print a sequence of numbers which are perfect square up to the number given by user, for example user has given 50, then you have to display all perfect squares in sequence up to 50, as below: 4, 9, 16, 25, 36, 49.

8. Writ a program to print below series, Hint: First Understand the logic of series and then use Loops for implementing the logic:

A. 2, 4, 16, 256
B. 1,2,2,4,8,32
C. 2,4,8,16,32,64
D. 2,3,5,8,12,17,23
E. A,C,E,G,I,K,M
F. Z,X,V,T,R,P
G. B,C,E,G,K,M,Q,S,W