Lab 4

Logic Building using Visual Programming Language (Scratch)

Question1.

Make a simple calculator using scratch.

Question 2:

1. Find out **distance**, **coordinates of midpoint** using distance formula, derived from Pythagorean Theorem and value of **X** by Quadratic formula, as follows:

    a. *Distance = √((x2-x1)^2 + (y2-y1)^2)*

    b. *Midpoint-coord = ((x2+x1/2), (y2+y1/2))*

    c. $$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$ *, Given (*a≠0*.)*

Question 3:

Make a game by using your own imagination (but within boundaries of course) with your own set of rules and obligations.

Question 4:

2. Make a program which ask user for 'n' numbers entries and then perform following tasks as well.

    Suggested: Make a menu for the operations with specific numbers so that each can be checked anytime.

    a. Print the sum of n numbers,
    b. Print even numbers if any,
    c. Print odd numbers if any,
    d. Print prime numbers if any.
    e. Print the maximum number.
    f. Print the minimum number.
    g. Print negative numbers if any.

Bonus:

Sketch graph lines. (hint keep x-axis = 210, -210 and y-axis 150, -150 for positive and negative axis respectively)

a. Draw Q1 result.
b. Draw Q3 result.
c. Sort the list elements by any method/technique in Q2.