Student Name: _____ **Roll No:** _____ **Section:** _____

Question:1 (Algorithm):

Write a step-by-step algorithm to determine the year when a person will turn 100 years old.

Your algorithm must clearly list the steps for:

- Obtaining the three input values: name, current age, and current year.
- Calculating the year when the person will turn 100.
- Displaying a message addressed to the person that tells them the year they will turn 100.

Question:2 (Flowchart):

Create a flowchart that illustrates the process of calculating the perimeter of a square.

Formula: Perimeter = 4 × Side.

Question:3 (Introduction to Scratch):

Create a Scratch Program where:

1. The sprite asks the initial question. The user's answer is not used for the color logic.
2. The sprite directly tells the user its favorite color is Blue.
3. The set color effect to (40) block changes the sprite's color to a shade of blue. (You can adjust the number to get the perfect blue you like).
4. The sprite moves to a random spot on the stage.