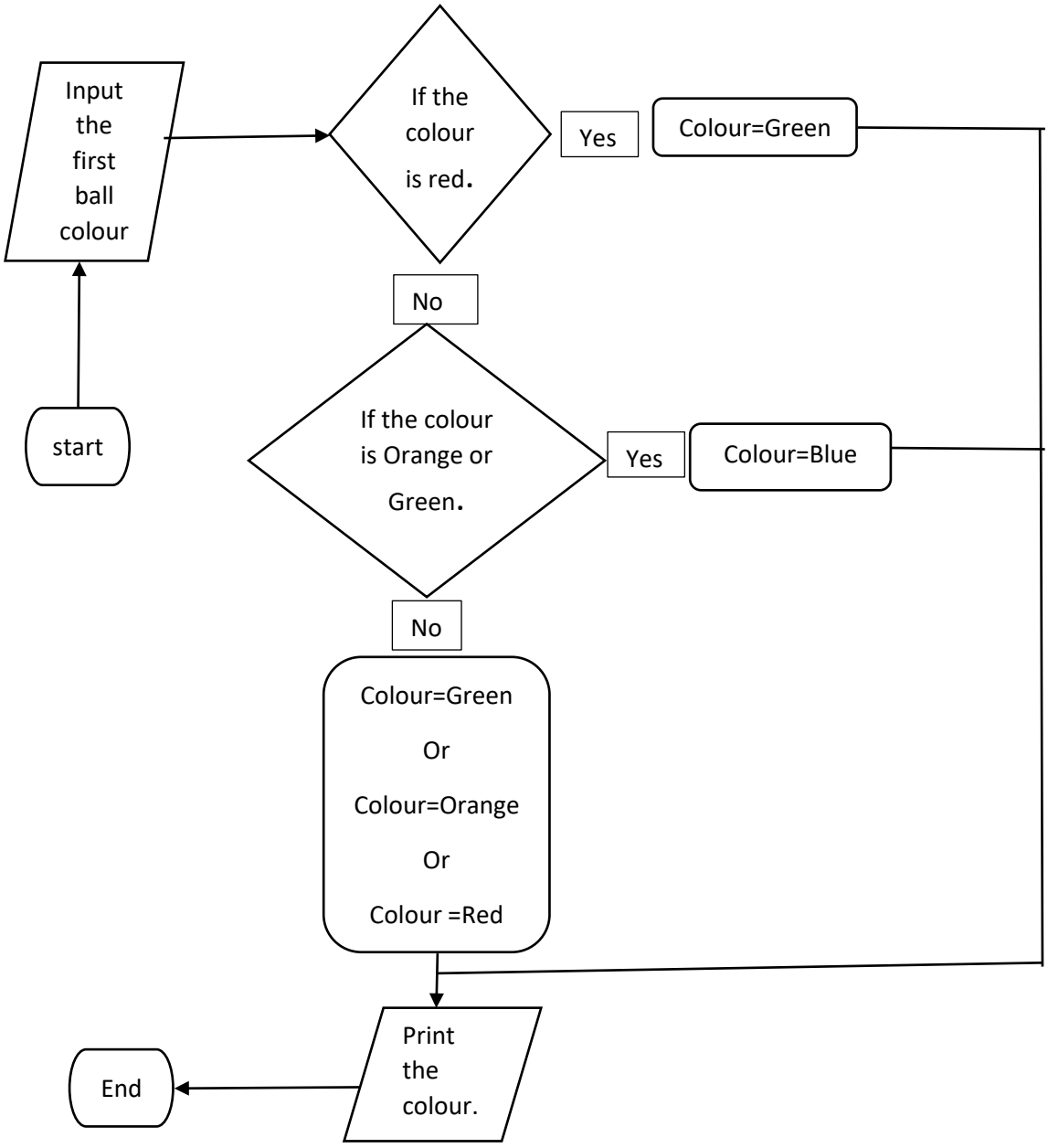
PROBLEM 1: In a bucket, there are balls of four different colours – Red, Green, Blue and Orange. A student can pick up two balls from the bucket. There are some…….

FLOWCHART:



ALGORITHM: (As it is given that the box has only 4 colours, namely Red, Green, Orange, Blue.)

STEP 1: Take input as the colour of the ball.

STEP 2: Check whether it is red colour If yes colour = Green, and Print colour. Termination the Program.

STEP 3: Check whether it is Green, Orange colour If yes colour = Blue, and Print colour. Termination the Program.

STEP 4: At last, the first ball colour will be blue itself. So, colour = Green or colour= Red or colour = Orange, and Print colour. Termination the Program.

PROBLEM 2: Lengths of three sides of a triangle a, b, c are given as input…….

ALGORITHM:

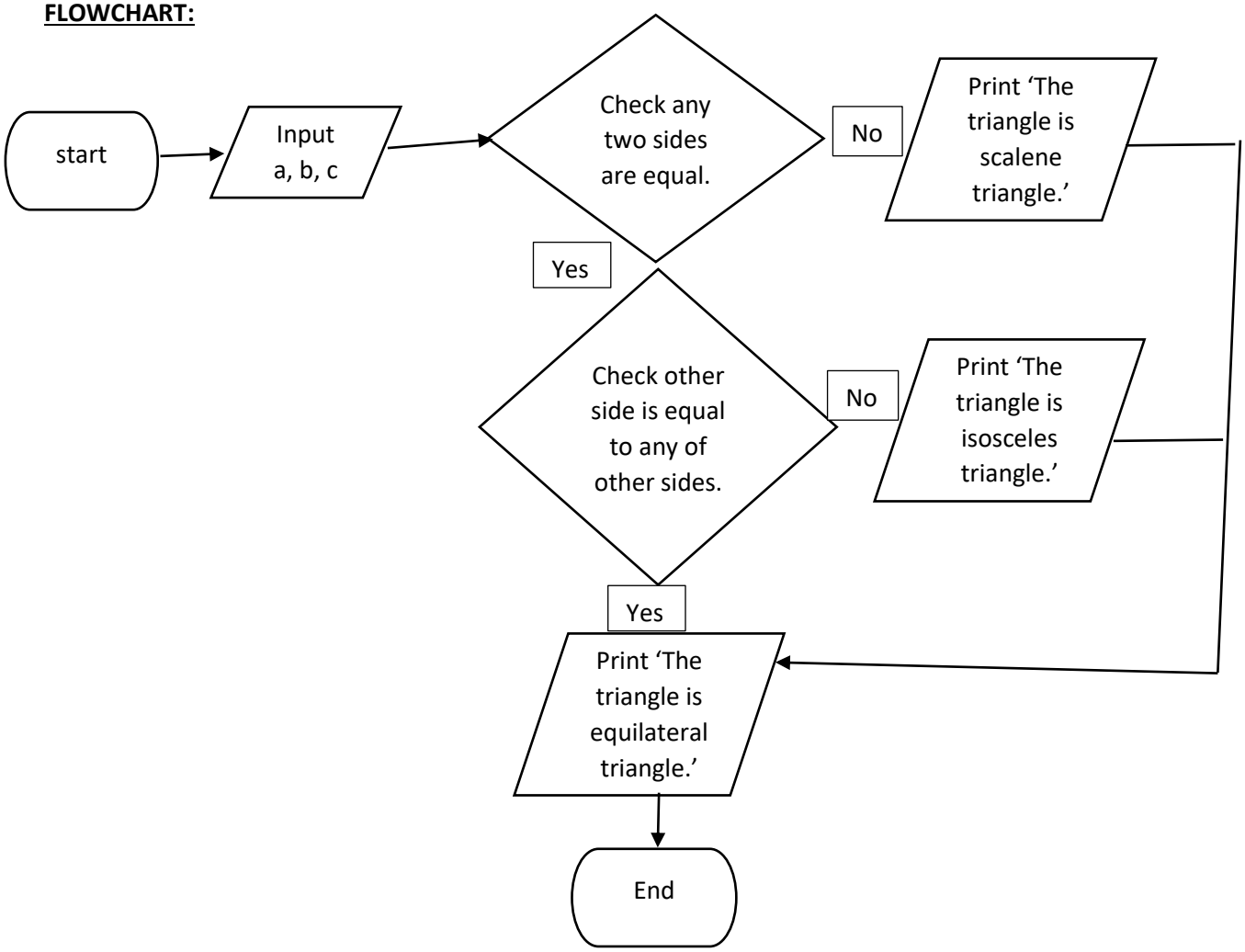
STEP 1: Take the input of the sides of the triangle. (a, b, c)

STEP 2: Check whether any two sides are equal, if its No print 'The triangle is scalene triangle.'.

STEP 3: if Yes check whether the remaining side is also equal to any of the sides.

STEP 4: If yes then print 'The triangle is equilateral triangle.' Else print 'The triangle is isosceles triangle.'.

FLOWCHART:



PROBLEM 3: Write an algorithm and draw the corresponding flowchart for finding the sum of the following…….

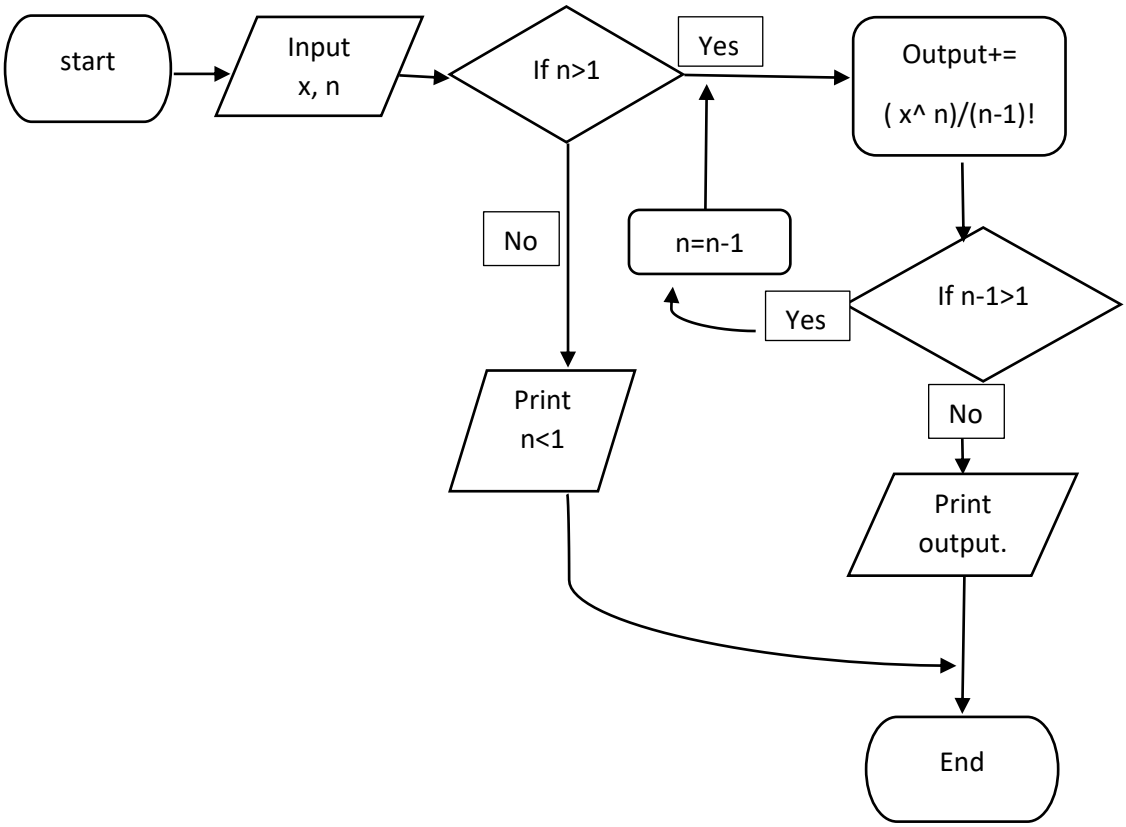
ALGORITHM:

STEP 1: Take the input x, n.

STEP 2: If n>1, Adding the output coming by substituting x, n in (x^ n)/(n-1)! by decreasing n, until n reaches 2. If n<1, print n<1.

STEP 3: Print the sum.

FLOWCHART:



PROBLEM 4: Write the algorithm and draw the corresponding flowchart for solving the following problem - Playing Snakes and Ladder game.

ALGORITHM:

STEP 1: Take input no of players.

STEP 2: Creating an array of players.

STEP 3: Add the value of position of player, and random value came from a dice.

STEP 4: Now check the Addition value with the position of snakes and ladders.

STEP 5: If it matches with snakes and ladders substrate or Add the value to which they end up respectively.

STEP 6: Check the position value whether it is 100 or not.

STEP 7: If yes terminate and print the winner, else repeat it with another player.

FLOWCHART: