1. Copied below is a working VBA code that runs a random walk simulation. Properly 
dim all variables used in the program and create a flow chart that represents what this 
code is doing on the right. After completing the flow chart, run the program 5 times and 
record the results at the bottom of the page.

Option Explicit Sub Random_Walk()

x = 0 'center the position
r = 0 'unnecessary, but it is good practice to initialize anyway
Do
  r = Rnd()
  If r < 0.5 Then
    x = x - 1
  ElseIf r > 0.5 Then
    x = x + 1
  End If
  If Abs(x) > 3 Then Exit Do
Loop
Name = Input box(“What is your name?”)
Win = “Hooray! ” & Name & “, You made it!”
If x > 0 Then
  MsgBox (Win)
Else
  MsgBox ("Splat! “ & Name & “ , You've been hit by a car.")
End If
End Sub
2. A student has three tennis balls, a blue one that is hollow, a red one that is filled with water, and a yellow one that is filled with dry sand. If a tennis ball has a diameter of 6.86 cm and a mass of 59.4g, flowchart and write a code that tells the player the mass of the ball that they decide to use. Hint: To use pi in VBA, dim pi so that, pi = 4* atn(1), density of water = 1g/cm$^3$, density of dry sand = 1.52 g/cm$^3$. 