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PROGRAM: BS (COMPUTER SCIENCE)

ASSIGNMENT #03

Q1: Write an Algorithm and Flow chart to perform the following conversions:

(i) Km/h to Ft/s

Step 01: Start

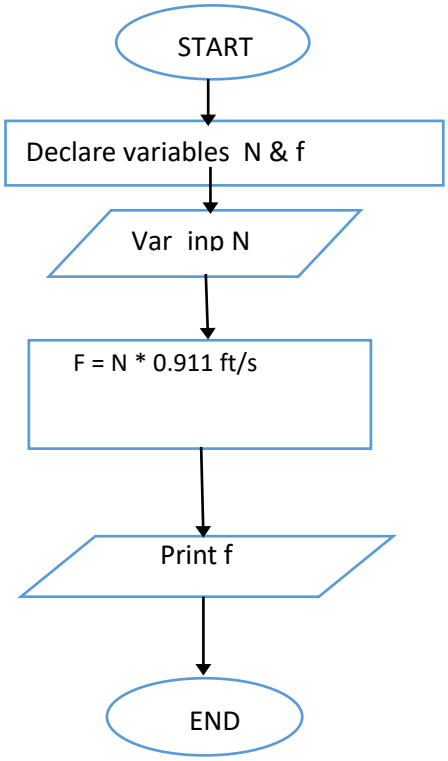
Step 02: Declare variables N, f

Step 03: Read N

Step 04: f = N * 0.911 ft/s

Step 05: End

Flow Chart:



(ii) Centigram to metric ton

Step 01: Start

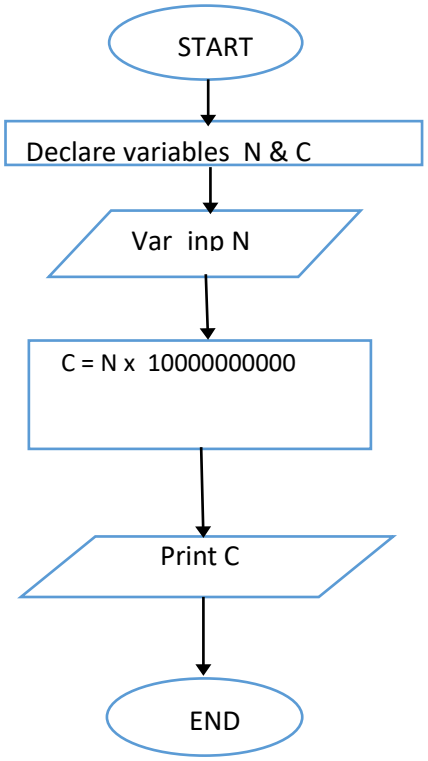
Step 02: Declare variables N, C

Step 03: Read N

Step 04: C = N x 10000000000

Step 05: End

Flow Chart:



(iii) Mile to Yards

Step 01: Start

Step 02: Declare variables yard, mil

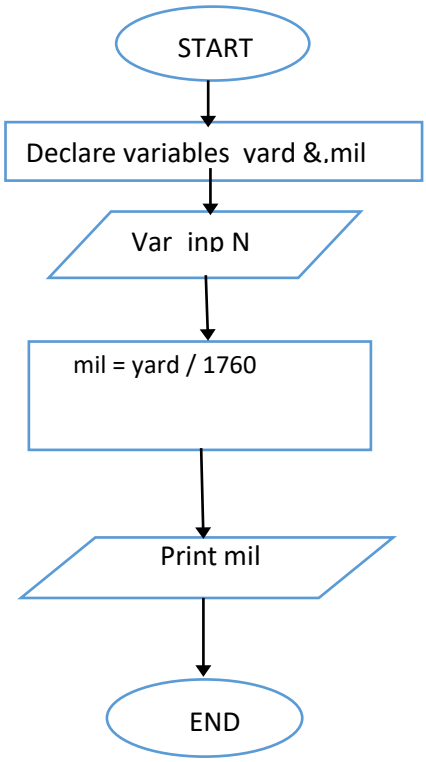
Step 03: Read yard

Step 04: mil = yard / 1760

Step 05: Display mil

Step 06: End

Flow Chart:



(iv) Celsius to Kelvin

Step 01: Start

Step 02: Declare variables K & C

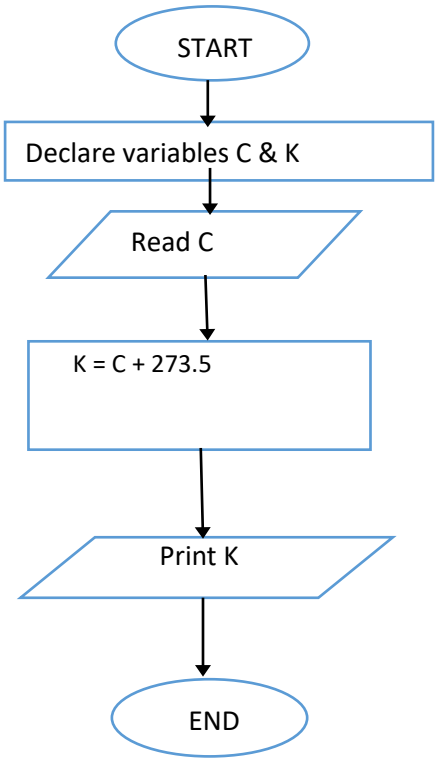
Step 03: Read C

Step 04: K = C + 273.5

Step 05: Display K

Step 06: End

Flow Chart:



(v) Rupee to Canadian Dollar

Step 01: Start

Step 02: Declare variables Rs, Can

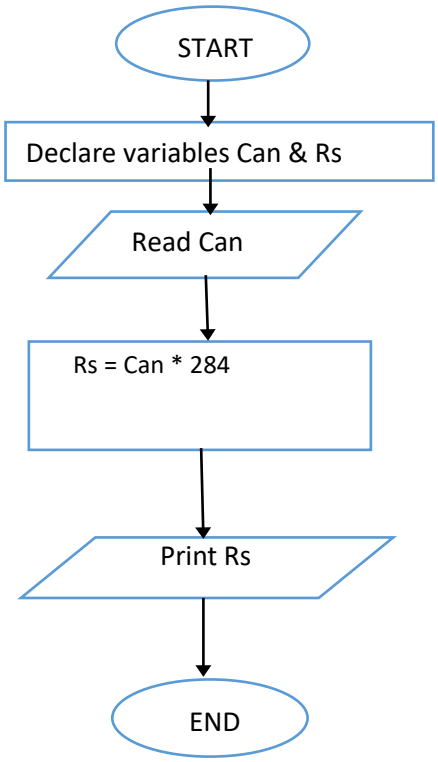
Step 03: Read Can

Step 04: Rs = Can * 284

Step 05: Display Rs

Step 06: End

Flow Chart:



Q2: Write an Algorithm and Flow chart that takes two integers from user A and B and exchange the value of A & B:

Algorithm:

Step 01: Start

Step 02: Declare variables “A” & “B”

Step 03: Read the value of A & B

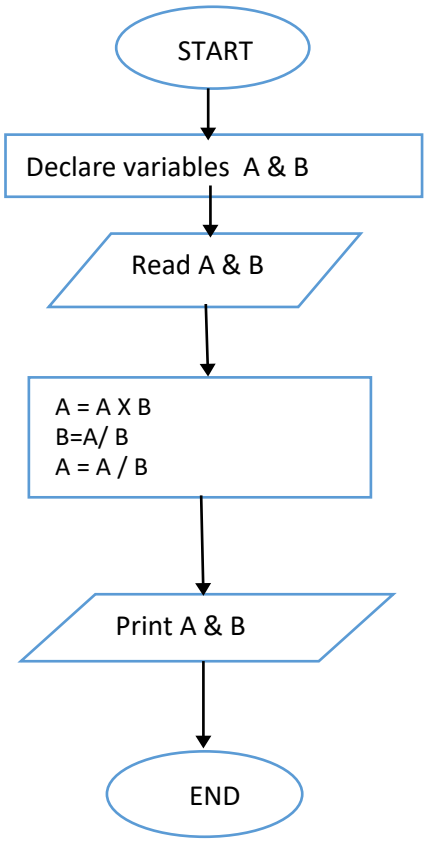
Step 04: A = A X B

B = A / B

A = A / B;

Step 05: Display A & B after Exchanging the value

Step 05: End



Q3: Write an Algorithm and Flow Chart Take value of length and breadth of rectangle from user & check if it is square or not:

Algorithm:

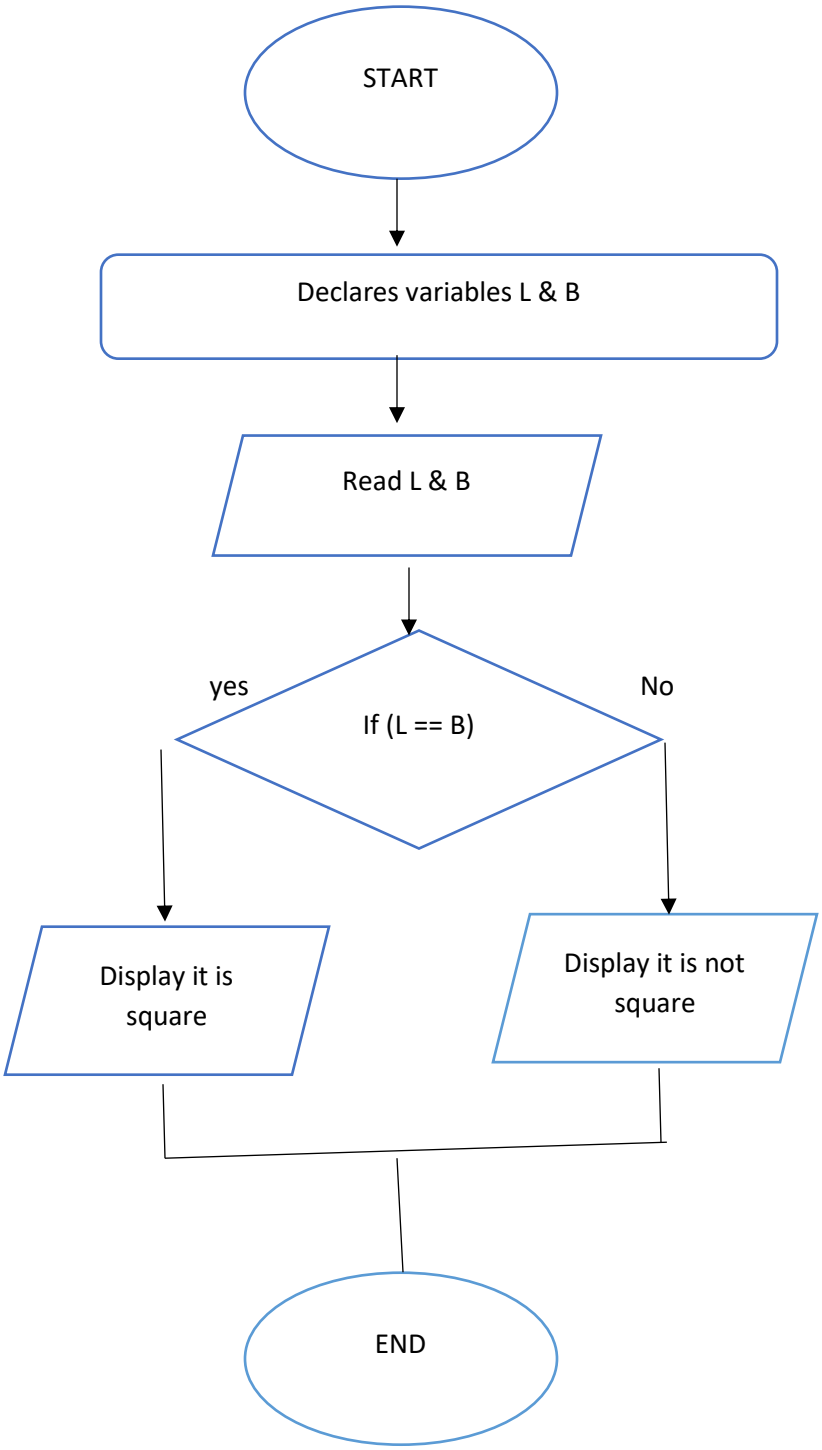
Step 01: Start

Step 02: Declare variables L & B

Step 03: Input the value of L and B

Step 04: If (length == breadth)
Display it is square
Else
Display not a square

Step 05: End



Q4: Write an Algorithm and Flow chart. A shop will give discount of 10% if the cost of purchased quantity is more than 1000. Ask user for quantity. Suppose, one unit will cost 100.
Judge and print total cost for user .

Algorithm:

Step 01: Start

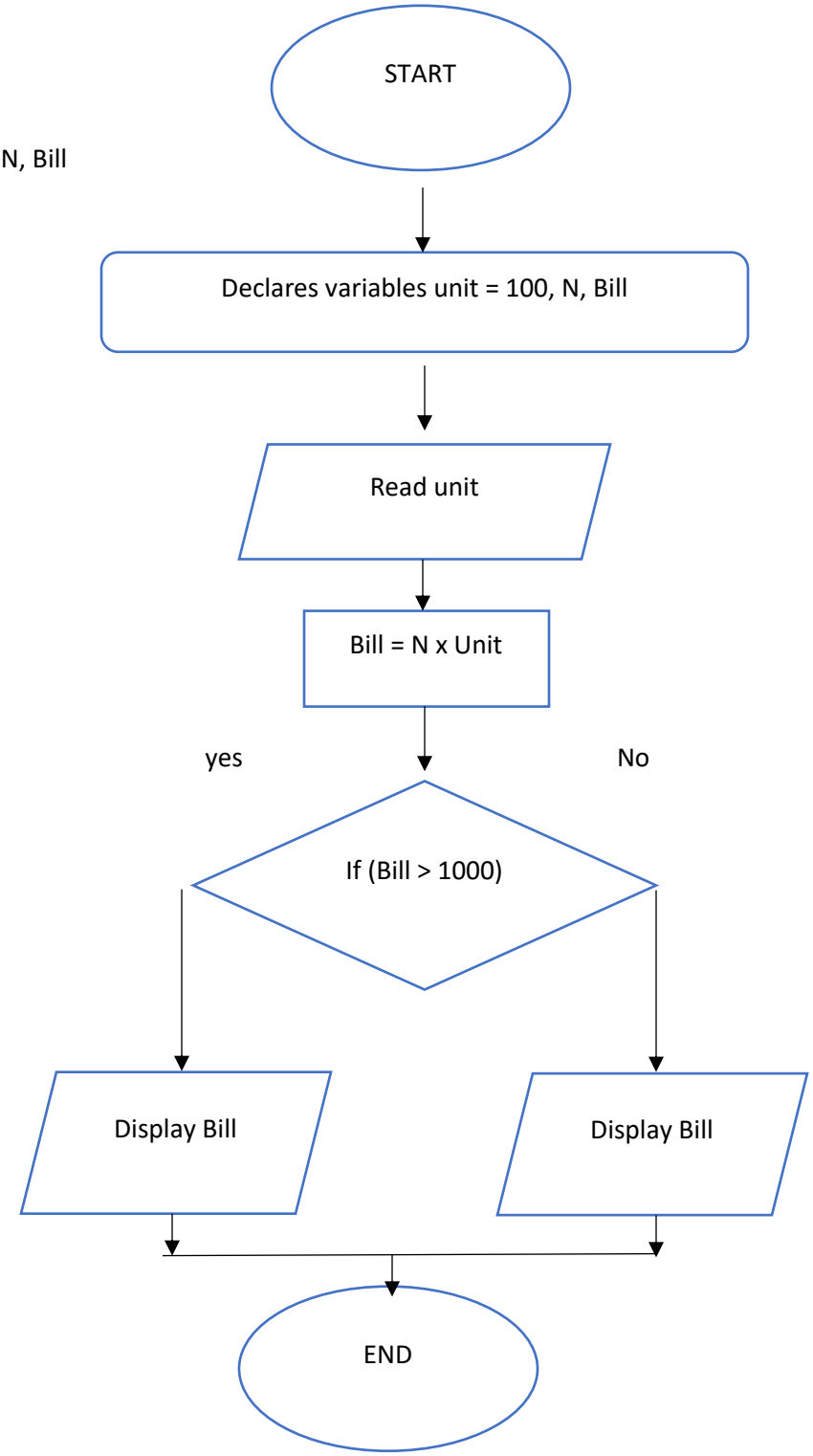
Step 02: Declare variable unit = 100, N, Bill

Step 03: Read N from user

Step 04: Bill = (unit x N)

Step 05: If (Bill > 1000)
Display Bill = Bill/10
Else
Display Bill

Step 06: End



Q5: Write an Algorithm and Flow chart: A school has following rules for grading system:

a. Below 25 – F
b. 25 to 45 – E

c. 45 to 50 – D

d. 50 to 60 – C

e. 60 to 80 – B

f. Above 80 – A

Algorithm:

Step 01: Start

Step 02: Declare variables G

Step 03: Read G from user

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Step 04: If (G < 25 )
           Display G = F
           Else if( G <45)
             Display G = E
         Else If (G < 50 )
           Display G = D
           Else if( G < 60)
             Display G  = C
         Else If (G < 80 )
           Display G = B
           Else
             Display G = A
Step 06: End
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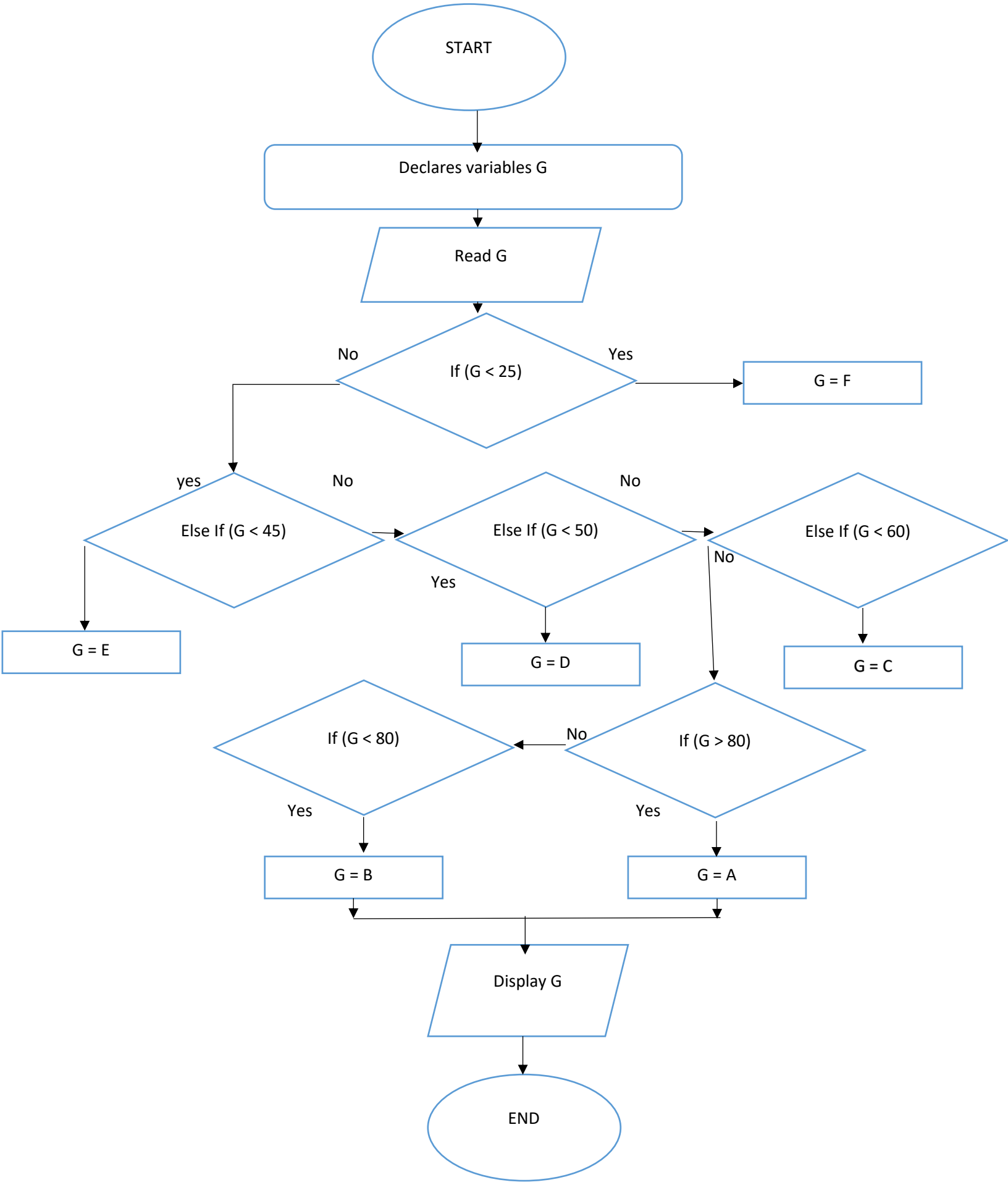
FLOW_CHART----------> CONTINUE ON NEXT PAGE;


START
Declares variables G
Read G
If (G < 25)
No
Yes
G = F
yes
No
Else If (G < 45)
G = E
Else If (G < 50)
No
Yes
G = D
Else If (G < 60)
No
G = C
If (G < 80)
No
If (G > 80)
Yes
G = B
Yes
G = A
Display G
END