Date: 04/09/2020

WEEK 14: Assignment

1. **Write a pseudo code to:**
   - **Write a pseudo code to add two numbers.**

Pseudocode:

```
Read A;
Read B;
C=A+B;
Print C;
```

- **Write a pseudo code to Subtract two numbers.**

Pseudocode:

```
Read a;
Read b;
c=a-b;
Print c;
End.
```

- **Write a pseudo code to Multiply two numbers:**

Pseudocode:

```
Read A;
Read B;
C=A* B;
Print C;
END.
```

- **Write a pseudo code to Divide two number:**

Pseudocode:

```
Read a;
Read b;
c=a/b;
Print c;
End.
```

- **Write a pseudo code to Calculate the Area of triangle.**

Pseudocode:

Begin

Numeric Base,Area,Height;

DISPLAY "Enter the base of triangle: "

ACCEPT Base

DISPLAY "Enter the height of triangle: "

ACCEPT Height

Area=Base*Height

DISPLAY "Area of triangle: " Area

END.

- **Write a pseudo code to Calculate the Hypotenuse of a triangle.**

Pseudocode:

Read A;

Read B;

C=((A×A)+(B×B)) ^1/2;

Print C;

- **Write a pseudo code to Calculate the Area and circumference of a circle.**

Pseudocode:

BEGIN

numeric Radius,Cir,Area

DISPLAY "Enter the radius of circle : "

ACCEPT Radius

Cir=2*Radius*22/7

DISPLAY "Circumfurance of circle : " nCir

DISPLAY "Enter the radius of circle : "

ACCEPT Radius

Area = Radius*Radius*22/7

DISPLAY "Area of circle: " Area

END

- **Write a pseudo code to Calculate Square and Cube of any number**

Pseudocode:

READ A;

SQUARE=A* A;

Print Square;

Cube = Square * A;

Print Cube;

- **Write a pseudo code to Calculate the number is odd or even.**

Pseudocode:

BEGIN

NUMERIC Num

DISPLAY "Enter a number: "

ACCEPT Num

If(Num%2==0)

BEGIN

DISPLAY "even"

END

ELSE

BEGIN

DISPLAY "odd"

END.

- **Write a pseudo code to Calculate the number is prime or not.**

Pseudocode:

Read n;

FOR loop=2 to n-1

Check if number is divisible by loop

IF divisible

Print “NOT PRIME”

END IF

END FOR

Print “PRIME”

- **Write a pseudo code to Calculate the floor and ceiling of any user input decimal number.**

Pseudocode:

Read A;

F=[A]

C=[A]

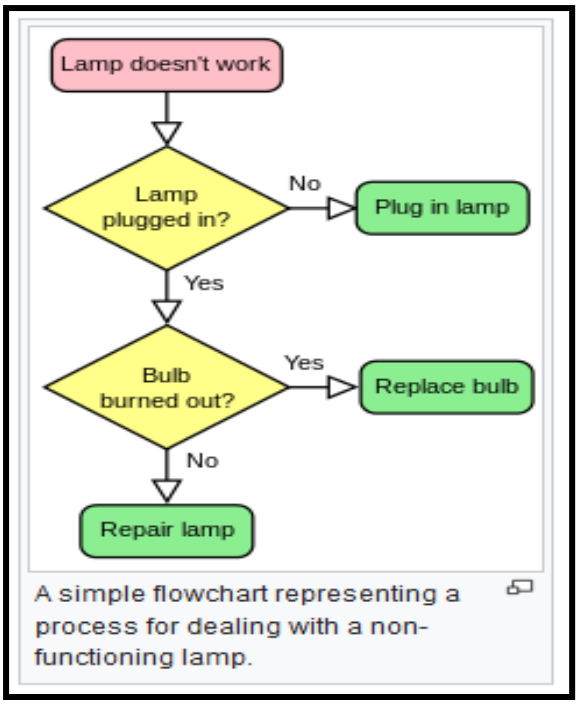
Print F;

Print C;

2. **Write an algorithm and draw a flowchart that will determine the largest value with two inputs. (Slide 23)**

Algorithm:
Step 1: Start
Step 2:
Step 3: Stop

Flowchart: Prepare a flow chart in PPT and take a screenshot and paste it in the word as image shown below.



A simple flowchart representing a process for dealing with a non-functioning lamp.

- **Write an algorithm and draw a flowchart that will determine the largest value with two inputs.**

Algorithm:

Step 1: Input VALUE1, VALUE2 as V1 and V2;

Step 2: if (VALUE1 > VALUE2) then

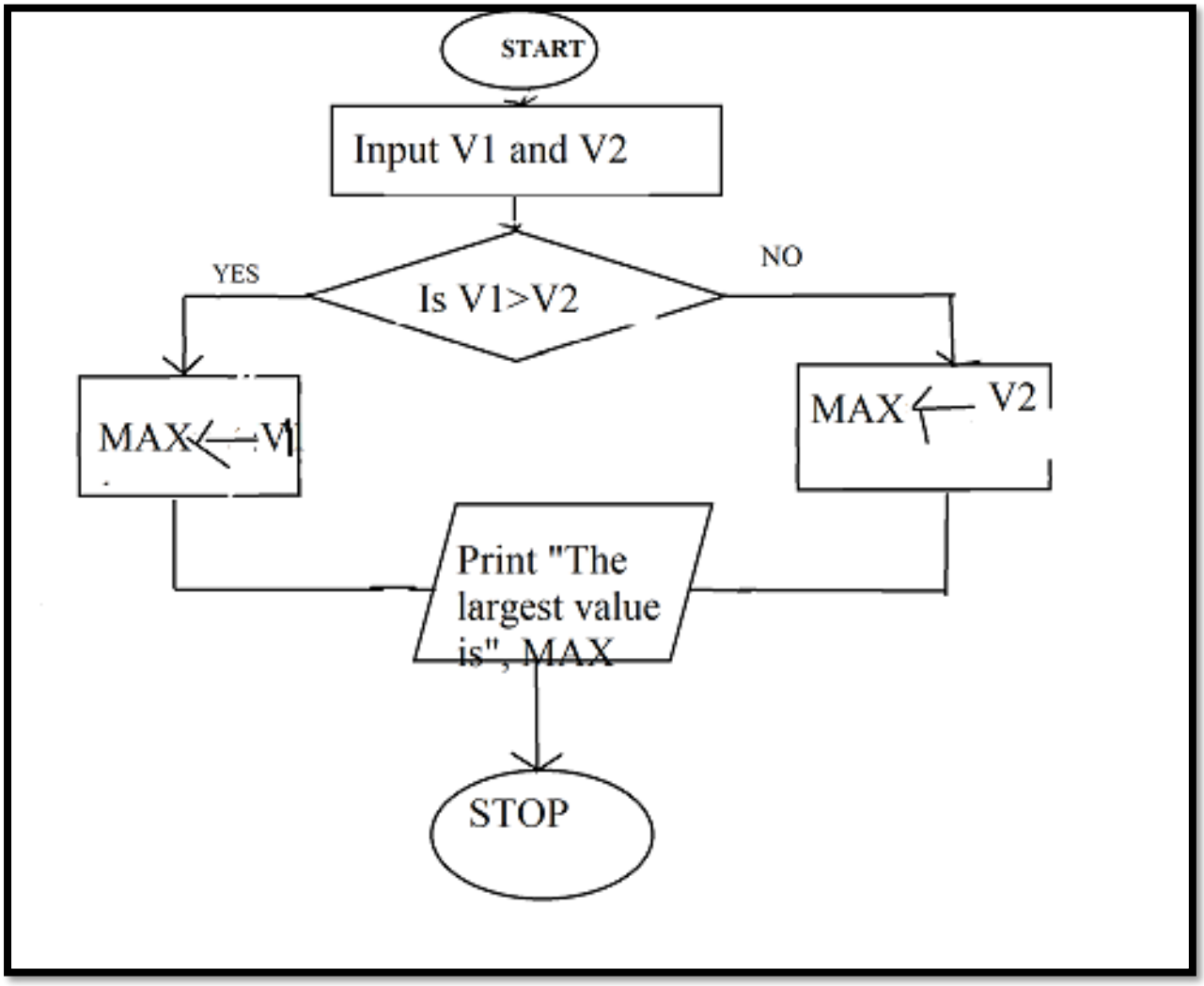
MAX is V1

else

MAX is V2

Step 3: Print “The largest value is”, MAX

Flowchart:



- **Write an algorithm and draw a flowchart that will determine the largest value with three inputs.**

Algorithm:

Step 1: Start

Step 2: Read the three numbers to be compared, as A, B and C.

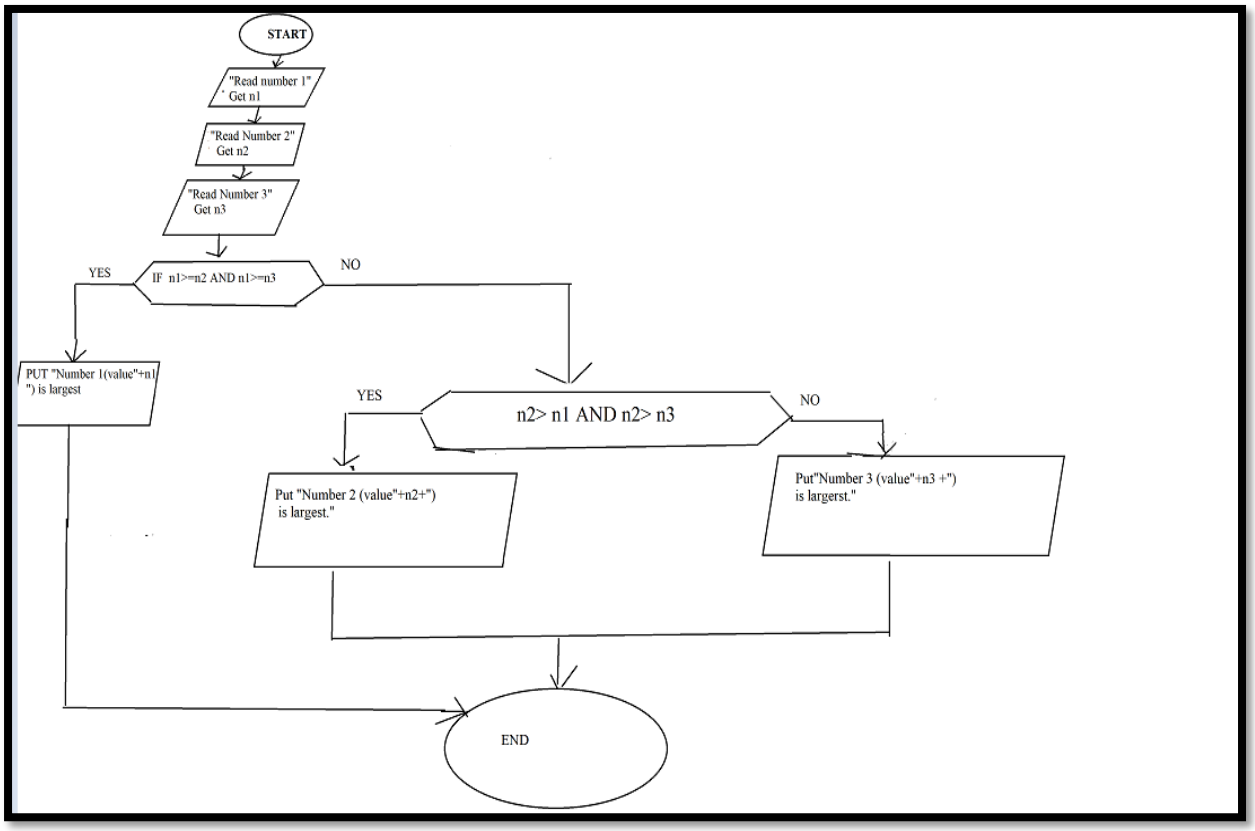
Step 3: Check if A is greater than B.

Step 4: If true, then check if A is greater than C. If true, print 'A' as the greatest number. If false, print 'C' as the greatest number.

Step 5: If false, then check if B is greater than C. If true, print 'B' as the greatest number. If false, print 'C' as the greatest number.

Step 6:End

Flowchart:



- **Write an algorithm and draw a flowchart that will determine if the number is even or odd.**

Algorithm:

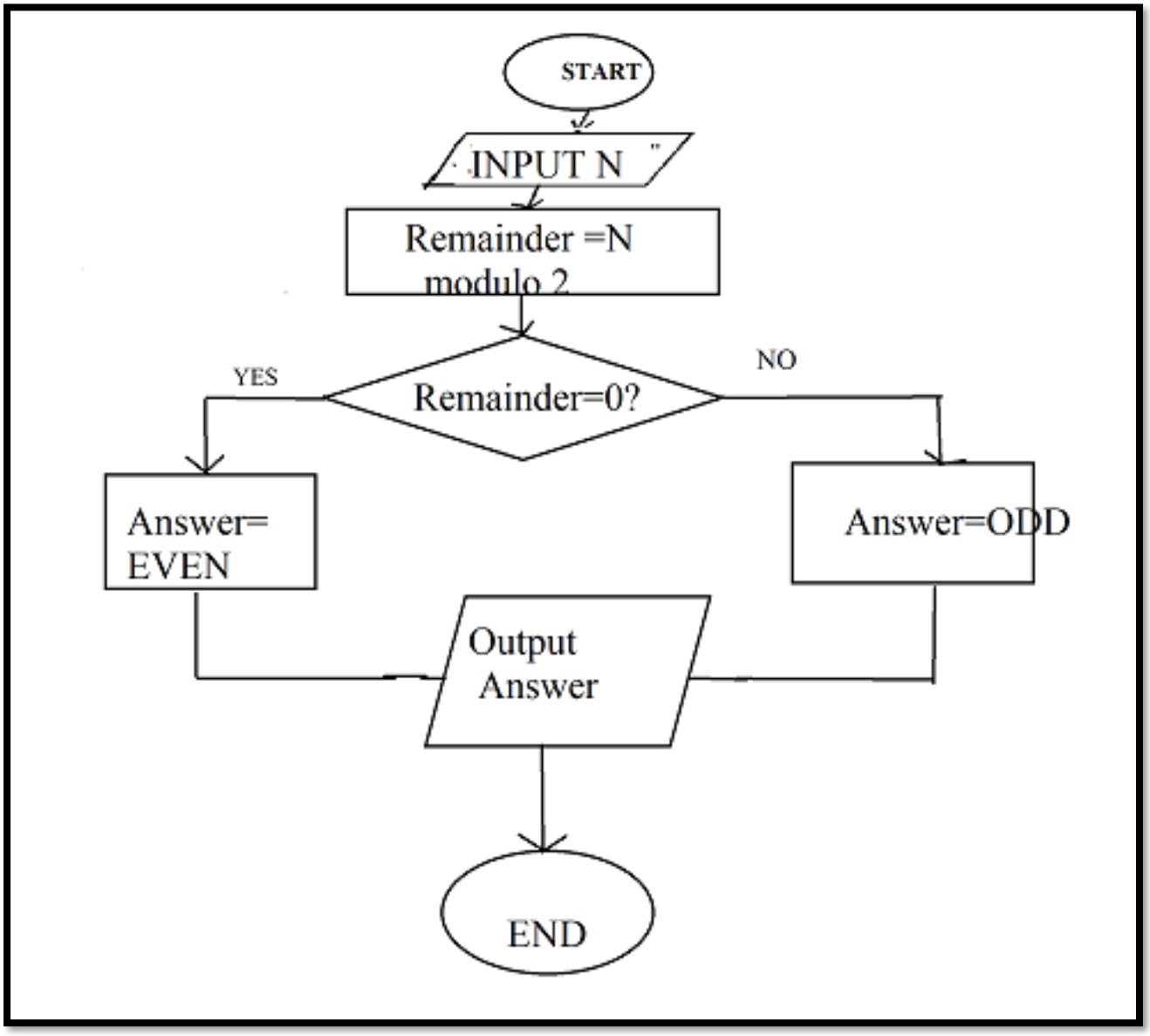
Step 1: Read number N,

Step 2: Put the remainder as N modulo 2,

Step 3: If the remainder is equal to 0 then number N is even, else number N is odd,

Step 4: Print output.

Flowchart:



- **Write an algorithm and draw a flowchart that will add two numbers.**

Algorithm:

Step 1: Start

Step 2: Declare variable A,B and sum;

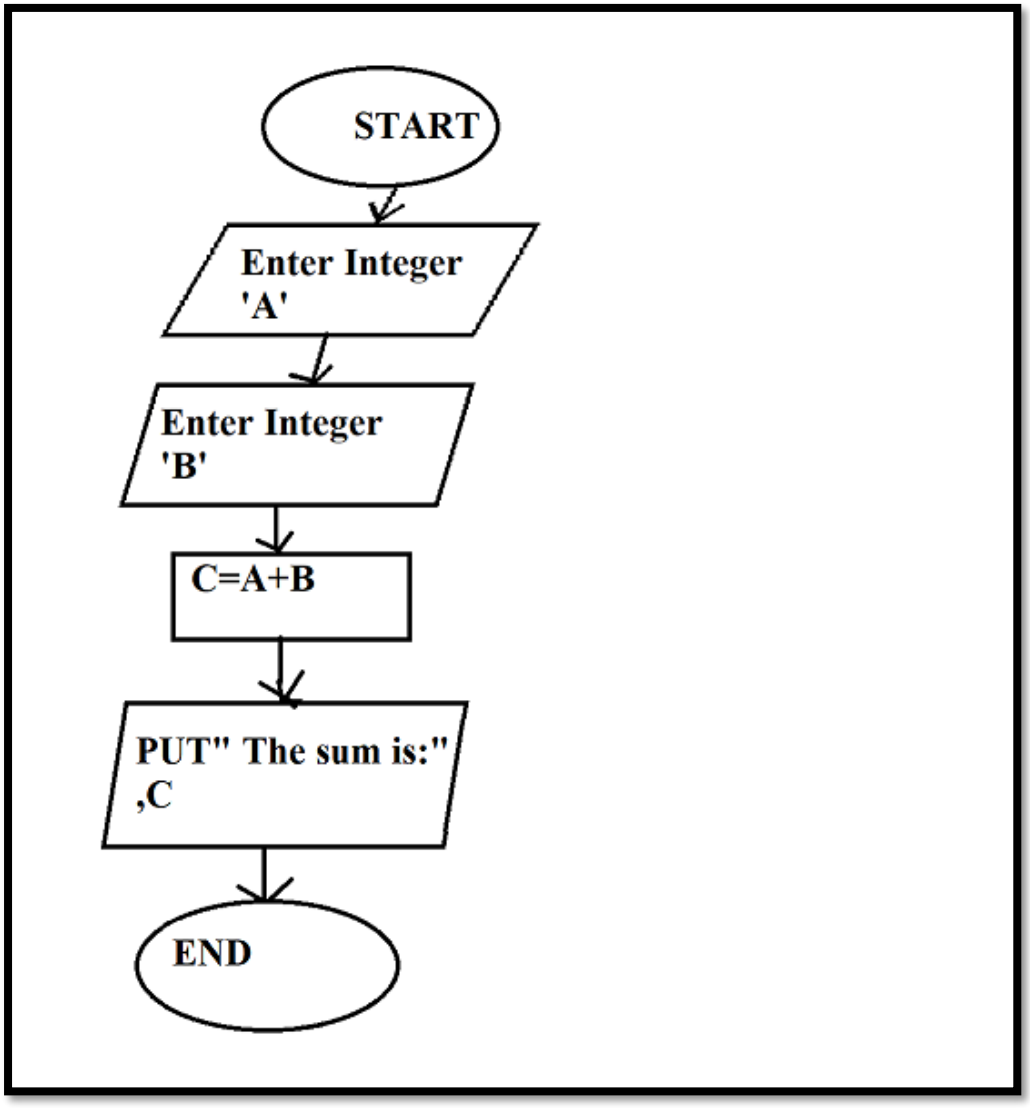
Step 3:Enter Integer A and B;

Step 4: Do the addition for A and B ,assign the result in C;

Step 5:Print C;

Step 6:End

Flowchart:



- **Write an algorithm and draw a flowchart that will subtract two numbers.**

Algorithm:

Step 1: Start

Step 2: Declare variable A,B and substractiom;

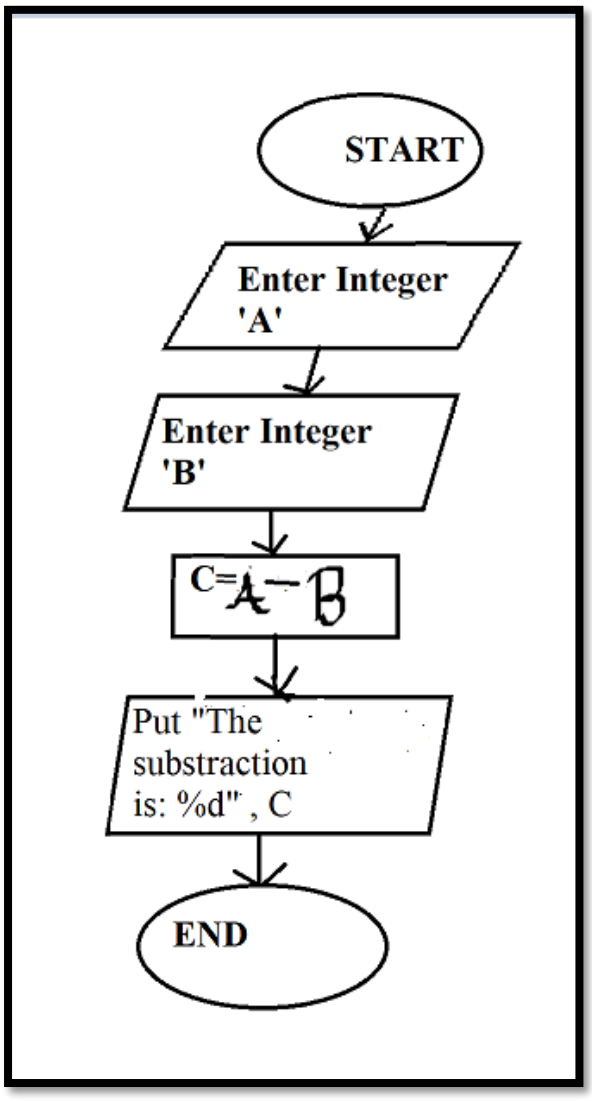
Step 3:Enter Integer A and B;

Step 4: Do the substraction for A and B ,assign the result in C;

Step 5:Print C DISPLAY substraction ;

Step 6:End

Flowchart:



- **Write an algorithm and draw a flowchart that will multiply two numbers.**

Algorithm:

Step 1: Start

Step 2: Declare variable A,B and mult;

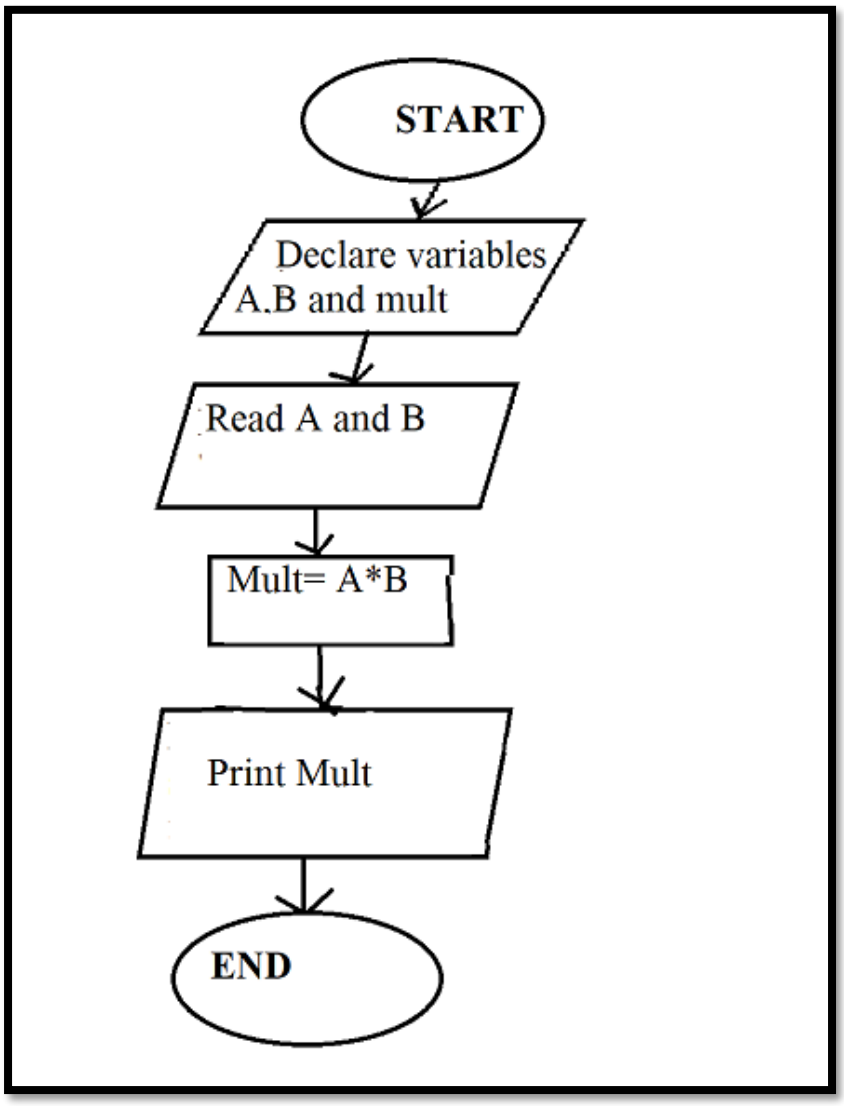
Step 3:Enter Integer A and B;

Step 4: Do the multiplication for A and B ,assign the result in C;

Step 5:Print C DISPLAY multiplication ;

Step 6:End

Flowchart:



- **Write an algorithm and draw a flowchart that will divide two numbers.**

Algorithm:

Step 1: Start

Step 2: Declare variable A,B and divide;

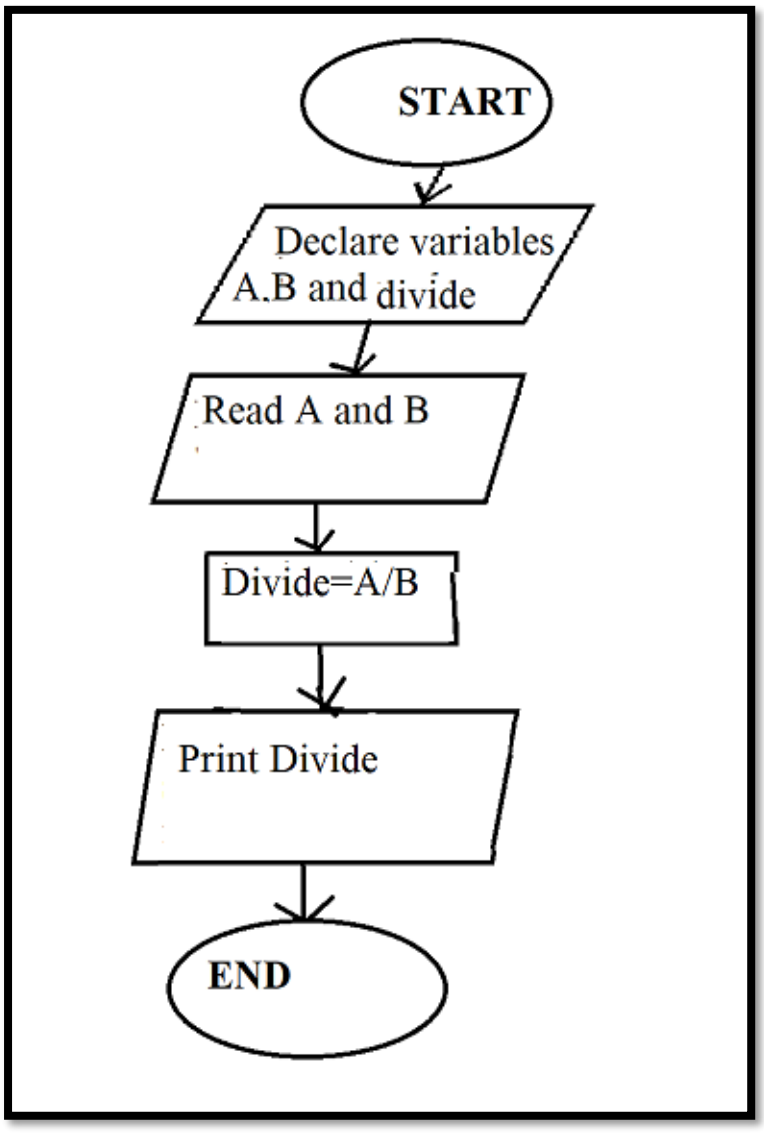
Step 3:Enter Integer A and B;

Step 4: Do the division for A and B ,assign the result in C;

Step 5:Print C DISPLAY division ;

Step 6:End

Flowchart:



- Write an algorithm and draw a flowchart that will calculate the area of triangle. (**1/2 * base * height**)

Algorithm:

STEP 1 : START

STEP 2 : ACCEPT THE BASE OF,TRIANGLE

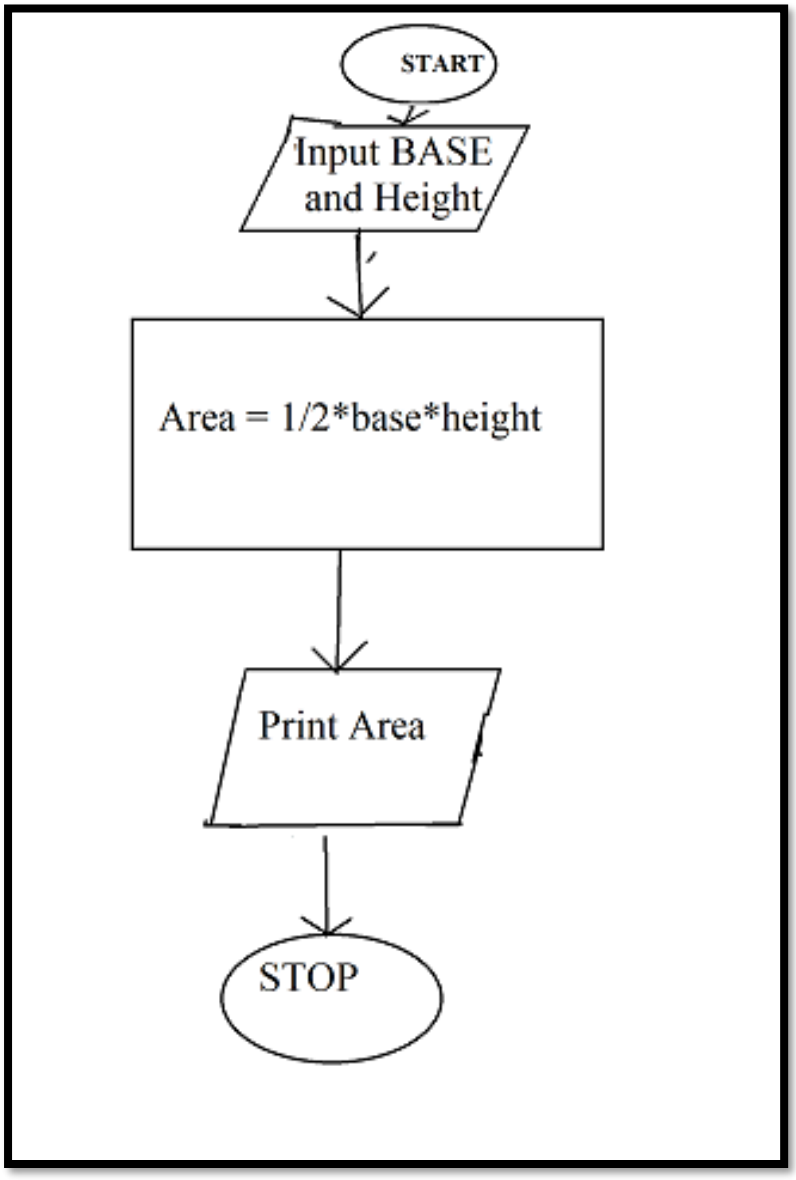
STEP 3 : ACCEPT THE Height OF RECTANGLE

STEP 4 : Area = ½*base*height

STEP 5 : DISPLAY

STEP 6 : STOP

Flowchart:



- Write an algorithm and draw a flowchart that will calculate the hypotenuse of a triangle. ($\mathbf{a^2 + b^2 = c^2}$)

Algorithm:

Step 1: Start

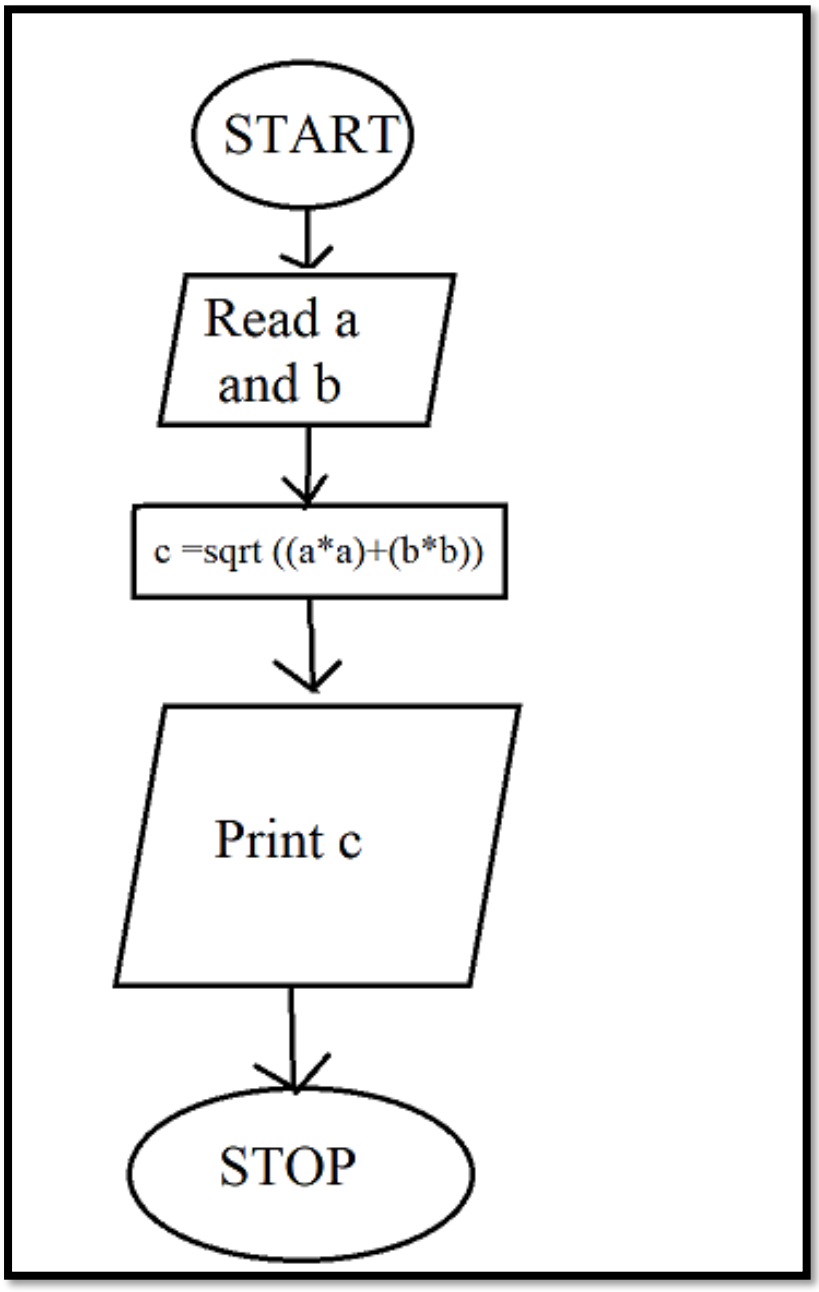
Step 2: Read a and b

Step 3: Calculate ($a^2 + b^2$) ^1/2 and store it in c

Step 4: Print c

Step 5: Stop

Flowchart:



- **Write an algorithm and draw a flowchart that will calculate the area and circumference of a circle.**

Algorithm:

Step 1:Start

Step 2: : Give Pi = 3.14

Step 3: Read the value of radius r of Circle

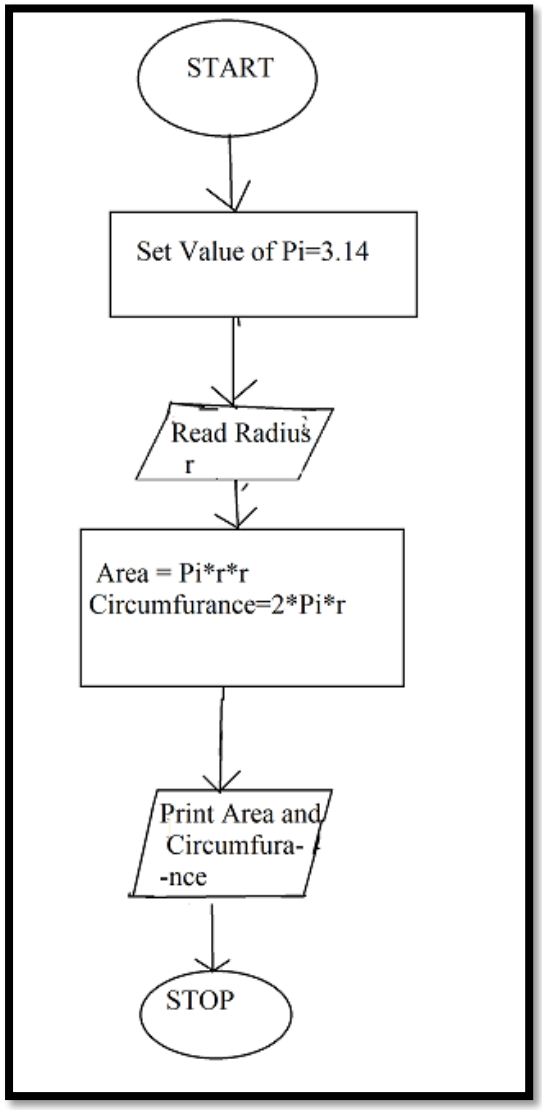
Step 4: Calculate area of Circle = Pi x r x r

Step 5: Calculate the Circumference (C) = 2 X Pi X r

Step 6: Print and Calculate the Area and Circumference of circle

Step 7: End.

Flowchart:



- **Write an algorithm and draw a flowchart that will calculate the square and cube of any number.**

Algorithm:

Step 1: Start

Step 2: Input Side Length of Square say L

Step 3: Area = L x L

Step 4: CUBE = L*L*L

Step 5: Display AREA, Cube

Step 6: Stop

Flowchart: