**Algorithms & Flowcharts**

***1. Add two numbers.***

* **Algorithm:**

**Step 1:** Input the first number from the user

**Step 2:** Input the second number from the user

**Step 3:** Add the two numbers

**Step 4:** Store the result

**Step 5:** Print the result

**Step 6:** Stop

* **Flowchart:**

Start

Read

First\_number, Second\_number

Add First\_number, Second\_number giving Sum

Print

Sum

Stop

***2. Find out the area and perimeter of a rectangle.***

* **Algorithm:**

**Step 1:** Input the length & breadth of the rectangle from the user.

**Step 2:** Multiply the length & breadth to get the area

**Step 3:** Add the length & breadth to get the total

**Step 4:** Double the total to get the perimeter

**Step 5:** Print the area

**Step 6:** Print the perimeter

**Step 7:** Stop

* **Flowchart:**

Start

Add *Length*, *Breadth* giving *Total*

Multiply *Length* & *Breadth* giving *Area*

Read

*Length, Breadth*

Double the *Total* to get *Perimeter*

Print

*Area*, *Perimeter*

Stop

***3. Input three decimal numbers and find their sum and average.***

* **Algorithm:**

**Step 1**: Input first number, second number & third number from the user.

**Step 2:** Add first number, second number & third number to get Sum.

**Step 3:** Divide Sum by 3 to get Average.

**Step 4:** Print Sum.

**Step 5:** Print Average.

**Step 6:** Stop

* **Flowchart:**

Stop

Print

*Sum, Average*

*Average* = *Sum/*3

*Sum*= *First*\_*Number* +

*Second\_Number* + *Third\_Number*

Read *First\_Number,*

*Second\_Number , Third\_Number*

Start

***5. Input temperature in Celsius and convert it to Fahrenheit.***

* **Algorithm:**

**Step 1:** Input Temperature in Celsius from the user.

**Step 2:** Temperature in Fahrenheit = + 32

**Step 3:** Print Temperature in Fahrenheit

**Step 4:** Stop

* **Flowchart:**

Start

Stop

Print

*Temperature\_in\_Fahrenheit*

*Temperature\_in\_Fahrenheit =*

+ 32

Read

*Temperature\_in\_Celsius*

***6. Input a number and find its absolute value.***

* **Algorithm:**

Step 1: Input a number from the user

Step 2: If the number is greater than or equal to 0 go to step 3

Otherwise go to step 4

Step 3: Absolute value = number

Step 4: Absolute value = -number

Step 5: Print Absolute value

Step 6: Stop

* **Flowchart:**

Start

Read

*Number*

Is

*Number* >=0

?

No

Yes

*Absolute\_Value = Number*

*Absolute\_Value =- Number*

Print

*Absolute\_Value*

Stop

***7. Input a number and check whether it is odd or even and display***

***accordingly.***

* **Algorithm:**

**Step 1:** Input a number from the user

**Step 2:** If the number is divisible by 2 go to step 3

Otherwise, go to step 4

**Step 3:** Print Even

**Step 4:** Print Odd

**Step 5:** Stop

* **Flowchart:**

Stop

Print

Odd

Print

Even

Is *Number*%2= 0

?

Read

*Number*

Start

No

Yes

***8. Find the largest and smallest among three numbers supplied by user.***

* **Algorithm:**

Step 1: Input first number, second number & third number from

the user.

Step 2: If first number is greater than or equal to second number

go to step 3. Otherwise go to step 9.

Step 3: If first number is greater than or equal to third number go

Step 4. Otherwise go to Step 8.

Step 4: Print first number as the largest number then go to Step 5.

Step 5: If second number is greater than or equal to the third

number go to Step 6. Otherwise go to Step 7.

Step 6: Print third number as the smallest.

Step 7: Print second number as the smallest.

Step 8: Print third number as the greatest and second number as

the smallest.

Step 9: If second number is greater than or equal to the third

number go to Step 10. Otherwise go to Step 14.

Step 10: Print second number as the greatest, then go to Step 11

Step 11: If third number is greater than or equal to first number,

go to Step 12. *Otherwise go to Step 13.*

Step 12: Print first number as the smallest.

Step 14: Print third number as the greatest and first number as

the smallest.

* **Flowchart:**

Start

Read

*First\_number, Second\_number, Third\_number*

Is

*First\_number >= Second\_number*

*?*

No

No

Yes

Yes

Yes

Is

*Second\_number >= Third\_number*

*?*

Is

*First\_number >= Third\_number*

*?*

No

No

No

Yes

Yes

Stop

Print

*Third\_number* is the largest & *First\_number* isthe smallest.

Print

*Third\_number* is the largest & *Second\_number* isthe smallest.

Print

*Second\_number* is the largest & *First\_number* isthe smallest.

Print

*First\_number* is the largest & *Second\_number* isthe smallest.

Print

*First\_number* is the largest & *Third\_number* isthe smallest.

Print

*Second\_number* is the largest & *Third\_number* isthe smallest.

Is

*First\_number >= Third\_number*

*?*

Is

*Second\_number >= Third\_number*

*?*