

Unit - 5

1. Average of a set of numbers :-

Algorithm :-

Step 1 : Start the program.

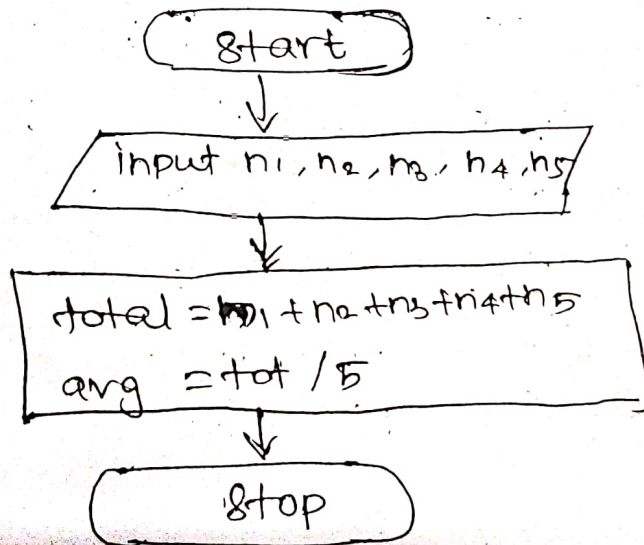
Step 2 : Get list of numbers through scanf () function.

Step 3 : Calculate total of the list numbers.

Step 4 : Find the average of the list of given numbers.

Step 5 : Print the average of list of numbers.

Flow chart :-



Program:

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
int n1, n2, n3, n4, n5, total, avg;
```

```
printf ("Enter 5 no's.");
```

```

scanf("%d", &n1, &n2, &n3, &n4, &n5);
total = n1 + n2 + n3 + n4 + n5;
avg = total / 5;
printf("Average of no's y. d", avg);
getch();
}

```

Output :

```

Enter 5
      10
      20
      30
      40
      50

```

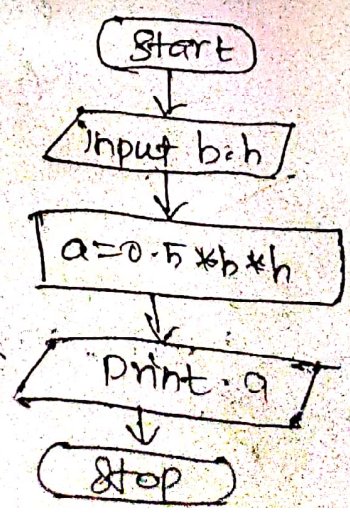
Average of 30

### 2) Area of Triangle :

#### Algorithm :-

- Step 1 : Start the program
- Step 2 : Declaring the variable b & h.
- Step 3 : Get input value for b & h.
- Step 4 : Calculate the area of Triangle using  $a = 0.5 * b * h$  formula.
- Step 5 : Print the variable a.
- Step 6 : Stop the program.

#### Flow chart :-



### Program:

```
#include <stdio.h>
void main()
{
    int b, h, a;
    printf ("Enter b,h values");
    scanf ("%d %d", &b, &h);
    a = 0.5 * b * h;
    printf ("area of Triangle in %d", a);
    getch ();
}
```

### output:

Enter b,h values,  
2  
5  
area of Triangle is 5

3) Sorting a Set of numbers in Ascending and Descending order.

### Algorithm:-

Step 1: Start the program.

Step 2: Declaring array variable with size.

Step 3: Get input values for that array variable.

Step 4: To check the first value of the list of numbers is greater than the next value Swap those two numbers.

Step 5: Until the list of numbers in ascending order.

Step 6: Stop the program.

### Flow Chart:

```

for (i=0; i<5; i++)
{
for (j=i+1; j<5; j++)
{
if (a[i] > a[j])
{
t = a[i];
a[i] = a[j];
a[j] = t;
}
}
}
}

```

.. }

}

```

printf ("Display Ascending order of list of no");

```

```

for (i=0; i<5; i++)
printf ("%d", a[i]);

```

Output:

Enter array values

12  
8  
20  
2  
15

Display Ascending order of list of no<sup>r</sup>

2  
8  
12  
15  
20

4) Summing the series of numbers.

Algorithm:-

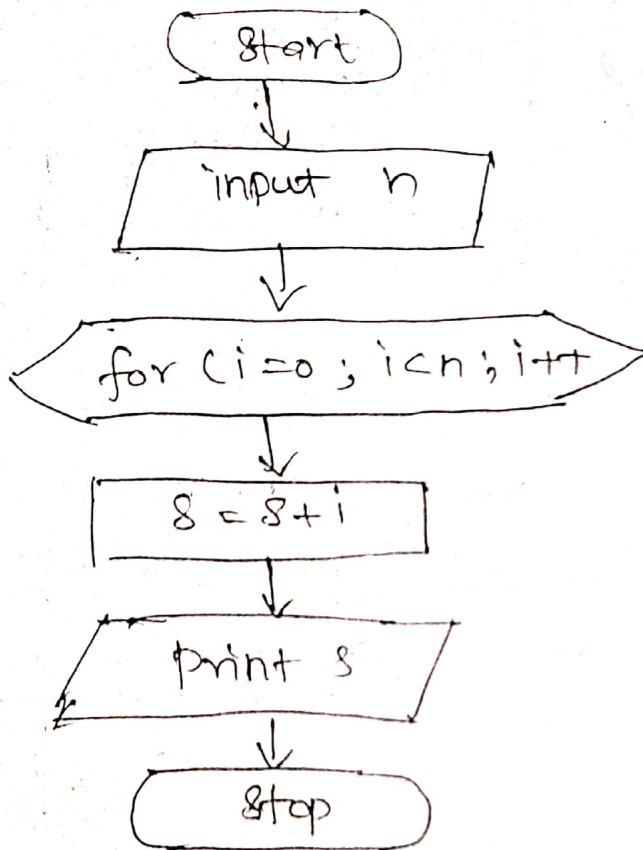
Step 1: Start the program

Step 3 - calculate the sum of series numbers using for loop.

Step 4 : Print the result.

Step 5 : Stop the program.

Flow chart :



Program

```
#include <stdio.h>
```

```
void main ( )
```

```
{
```

```
int n, i, s = 0;
```

```
printf ("Enter n value");
```

```
scanf ("%d", &n);
```

```
for (i=0; i<n; i++)
```

```
.. s = s + i; ..
```

```
printf ("Sum of series is %d", s);
```

```
getch ( ) ;
```

```
}
```