

ASSIGNMENT-6

1. write a Program to Calculate Sum of first N natural number.

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

```
int main ( )
```

```
{
```

```
int i=1, n, Sum=0;
```

```
printf("Enter a number");
```

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

```
for (i=1; i<=n; i++)
```

```
{
```

```
Sum = Sum + i;
```

```
}
```

```
if (i > n)
```

```
printf("Sum is %d", Sum);
```

```
return 0;
```

```
}
```

2. write a Program to ~~print~~ Calculate Sum of first N even natural number.

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

```
int main ( )
```

```
{
```

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

```
printf("Enter a number");
```

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

```
for (i=1; i<=n; i++)
```

```
{
```

```
Sum = Sum + 2 * i;
```

```
}
```

```
if (i > n)
```

```
printf("Sum is %d", Sum);
```

```
return 0;
```

```
}
```


3.

Write a program to calculate sum of first N and natural number.

```
#include <stdio.h>
int main
{
    int i, n, sum = 0;
    printf("Enter a number");
    scanf("%d", &n);
    for (i = 1; i <= n; i++)
    {
        sum = sum + 2 * i - 1;
    }
    if (i > n)
        printf("Sum is %d", sum);
    return 0;
}
```

n=5

1+3+5+7+9=25

4.

Write a program to calculate sum of squares of first N natural numbers.

```
#include <stdio.h>
int main()
{
    int i, n, sum = 0;
    printf("Enter a Number:");
    scanf("%d", &n);
    for (i = 1; i <= n; i++)
    {
        sum = sum + i * i;
    }
    if (i > n)
        printf("Sum of square is %d", sum);
    return 0;
}
```

n=5

1²+2²+3²+4²+5²

= 55

5. Write a program to calculate ^{sum of cubes of first} ~~factorial~~ ~~of~~ ~~n~~ natural ~~to~~ a number.

```
#include <stdio.h>
int main()
{
    int i, n, Sum = 0;
    printf("Enter a number:");
    scanf("%d", &n);
    {
        Sum = Sum + i*i*i;
    }
    if (i > n)
        printf("Sum of Cubes is: %d", Sum);
    return 0;
}
```

$n=5$
 $1+8+27+64+125$
 $= 225$

6. Write a program to calculate factorial of a number.

```
#include <stdio.h>
int main()
{
    int i, n, Fact = 1;
    printf("Enter a number:");
    scanf("%d", &n);
    for (i = 1; i <= n; i++)
    {
        Fact = Fact * i;
    }
    if (i > n)
        printf("factorial of %d is %d", n, Fact);
    return 0;
}
```

7.

Write a Program to count digits in a given number

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

```
int main ( )
```

```
{
```

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

```
printf ("Enter a Number");
```

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

```
while (n)
```

```
{
```

```
n = n / 10;
```

```
Count++;
```

8.

Write a Program to ^{check} whether a given number is prime number or not.

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

```
int main ( )
```

```
{
```

```
int i, num;
```

```
printf ("Enter a Number");
```

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

```
for (i = 2; i < num; i++)
```

```
{
```

```
if (num % i == 0)
```

```
break;
```

```
}
```

```
if (i >= num)
```

```
printf ("Prime Number");
```

```
else
```

```
printf ("Not a Prime - Number");
```

```
return 0;
```

```
}
```


9. Write a Program to calculate LCM of two number

```
#include <stdio.h>

int main ()
{
    int LCM, a, b;
    printf ("Enter two number:");
    scanf ("%d", &a, &b);
    for (LCM = 1; LCM <= a * b; LCM++)
    {
        if (LCM % a == 0 && LCM % b == 0)
            break;
    }
    printf ("LCM is %d", LCM);
    return 0;
}
```

10. Write a Program to reverse the given number

```
#include <stdio.h>

int main ()
{
    int x, reverse, rem;
    printf ("Enter a number");
    scanf ("%d", &x);
    while (x != 0)
    {
        rem = x % 10;
        reverse = reverse * 10 + rem;
        x = x / 10;
    }
    printf ("Reverse is %d", reverse);
}
```