**ASSIGNMENT-06**

**1. Write a program to calculate sum 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;

    }

    Printf ("Sum of first %d natural numbers are %d”, n, sum);

    return 0;

}

**2. Write a program to calculate sum of first N even 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+2\*i;

    }

    Printf ("Sum of first %d even natural numbers are %d”, n, sum);

    return 0;

}

**3. Write a program to calculate sum of first N odd 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+(2\*i-1);

    }

    Printf ("Sum of first %d Odd natural numbers are %d”, n, sum);

    return 0;

}

**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);

    }

    Printf ("Sum of squares of first %d natural numbers are %d”, n, sum);

    return 0;

}

**5. Write a program to calculate sum of cubes 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\*i);

    }

    Printf ("Sum of Cubes of first %d natural numbers are %d”, n, sum);

    return 0;

}

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

#include<stdio.h>

int main ()

{

    int n, i, fact=1;

    printf ("Enter a number:");

    scanf ("%d", &n);

    for (i=0; i<n; i++)

      {

         fact=fact\*(i+1);

      }

    Printf ("Factorial of first %d natural numbers are %d”, n, fact);

    return 0;

}

**7. Write a program to count digits in a given number**

#include<stdio.h>

int main ()

{

    int n, i, cnt=0;

    printf ("Enter a Number:");

    scanf ("%d", &n);

    while (n)

    {

        n=n/10;

        cnt++;

    }

    Printf ("Number of digits is %d”, cnt);

    return 0;

}

**8. Write a program to check whether a given number is a Prime number or not.**

#include<stdio.h>

int main ()

{

    int x, i, res=0, cnt=0;

    printf ("Enter a Number:");

    scanf ("%d", &x);

    for (i=1; i<=x; i++)

    {

        res= x%i;

        if(res==0)

           cnt++;

    }

    if(cnt>2)

       printf ("%d is Not a Prime Number", x);

    else

      printf ("%d is a prime number", x);

    return 0;

}

**9. Write a program to calculate LCM of two numbers**

#include<stdio.h>

int main ()

{

    int n1, n2, maxi, mini;

    printf ("Enter Two numbers:");

    scanf ("%d%d", &n1, &n2);

    if (n1>n2)

    {

       if (n1%n2==0)

        printf ("LCM of %d and %d is %d", n1, n2, n1);

      else

          printf ("LCM of %d and %d is %d", n1, n2, n1\*n2);

    }

    else

    {

        if(n2%n1==0)

         printf ("LCM of %d and %d is %d", n1, n2, n2);

        else

          printf ("LCM of %d and %d is %d", n1, n2, n1\*n2);

    }

  return 0;

}

**10. Write a program to reverse a given number.**

#include<stdio.h>

int main ()

{

      long long int n, cnt=0;

    printf("Enter a number:");

    scanf("%lu",&n);

    while (n)

    {

      n=n/10;

      cnt++;

    }

    printf("Number of digits given number is %d",cnt);

    return 0;

}