ASSIGNMENT-6

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

Ans-#include<stdio.h>

int main(){

   int i,n,num,sum=0;

   printf("Enter the value of n:");

   scanf("%d",&n);

   for(i=0;i<n;i++){

      scanf("%d",&num);

      sum=sum+num;

   }

   printf("The Sum Of %d natural Number is:%d",n,sum);

   return 0;

}

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

Ans-#include<stdio.h>

int main(){

    int n,p,sum=0;

    printf("Enter the value of n:");

    scanf("%d",&n);

    p=n;

    while(p!=0){

        sum=sum+2\*p;

        p--;

    }

    printf("Sum of %d even natural numbers are %d",n,sum);

    return 0;

}

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

Ans-#include<stdio.h>

int main(){

    int n,p,sum=0;

    printf("Enter the value of n:");

    scanf("%d",&n);

    p=n;

    while(p!=0){

        sum=sum+(2\*p)-1;

        p--;

    }

    printf("Sum of %d odd natural numbers are %d",n,sum);

    return 0;

}

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

Ans-#include<stdio.h>

int main(){

    int n,p,sum=0;

    printf("Enter the value of n:");

    scanf("%d",&n);

    p=n;

    while(p!=0){

        sum=sum+(p\*p);

        p--;

    }

    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.

Ans-#include<stdio.h>

int main(){

    int n,p,sum=0;

    printf("Enter the value of n:");

    scanf("%d",&n);

    p=n;

    while(p!=0){

        sum=sum+(p\*p\*p);

        p--;

    }

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

    return 0;

}

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

Ans-#include<stdio.h>

int main(){

    int num,fact=1;

    printf("Enter the number:");

    scanf("%d",&num);

    for(int i=1;i<=num;i++){

       fact=fact\*i;

    }

    printf("%d",fact);

    return 0;

}

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

Ans-#include<stdio.h>

int main(){

     int number,count=0;

     printf("Enter the number:");

     scanf("%d",&number);

     while(number!=0){

        number=number/10;

        count++;

     }

     printf("%d",count);

    return 0;

}

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

Ans-#include<stdio.h>

int main(){

     int number,flag=0;

     printf("Enter the number:");

     scanf("%d",&number);

     for (int i = 2; i <number; i++)

     {

        if(number%i==0){

        flag=1;

        break;

        }

     }

     if(flag==1)

            printf("Not Prime NUmber");

        else

            printf("Prime Number");

    return 0;

}

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

Ans-#include<stdio.h>

int main(){

     int num1,num2,max;

     printf("Enter the Numbers:");

     scanf("%d %d",&num1,&num2);

     max=(num1>num2)?num1:num2;

     while(1){

        if((max%num1==0)&&(max%num2==0))

         break;

         max++;

     }

     printf("LCM of %d and %d is %d",num1,num2,max);

    return 0;

}

10. Write a program to reverse a given number.

Ans-#include<stdio.h>

int main(){

    int number,rev;

    printf("Enter the Number:");

    scanf("%d",&number);

    while(number!=0){

    rev=number%10;

    number=number/10;

    printf("%d",rev);

    }

    return 0;

}