**Assignment - 6 Solution Name – Om Pant**

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

Ans-

#include<stdio.h>

int main(){

    int i,n,sum=0;

    printf("Enter the value of N\n");

    scanf("%d",&n);

    for(i = 1;i<=n;i++){

        sum +=i;

    }

    printf("Sum of first %d natural numbers is: %d",n,sum);

    return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int i,n,sum=0;

    printf("Enter the value of N\n");

    scanf("%d",&n);

    for(i = 1;i<=n;i++){

        sum = sum + 2\*i;

    }

    printf("Sum of first %d even natural numbers is: %d",n,sum);

    return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int i,n,sum=0;

    printf("Enter the value of N\n");

    scanf("%d",&n);

    for(i = 1;i<=n;i++){

        sum = sum + (2\*i-1) ;

    }

    printf("Sum of first %d odd natural numbers is: %d",n,sum);

    return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int i,n,sum=0;

    printf("Enter the value of N\n");

    scanf("%d",&n);

    for(i = 1;i<=n;i++){

        sum += i\*i ;

    }

    printf("Sum of first %d natural numbers is: %d",n,sum);

    return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int i,n,sum=0;

    printf("Enter the value of N\n");

    scanf("%d",&n);

    for(i = 1;i<=n;i++){

        sum += i\*i\*i ;

    }

    printf("Sum of first %d natural numbers is: %d",n,sum);

    return 0;

}

1. Write a program to calculate factorial of a number

Ans-

#include<stdio.h>

int main(){

    int i,num;

    double factorial=1;

    printf("Enter the number:\n");

    scanf("%d",&num);

    for(i = 1;i<=num;i++){

        factorial \*= i;

    }

    printf("Factorial of %d is: %lf",num,factorial);

    return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int count=0,number;

    printf("Enter the number:\n");

    scanf("%d",&number);

    while(number!=0){

        number = number/10;

        count++;

    }

    printf("Number has %d digits\n",count);

    return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int i= 2,count,number,flag=0;

    printf("Enter the number:\n");

    scanf("%d",&number);

    while(i<number){

        if(number%i == 0){

            flag=1;

        }

        i++;

    }

    if(flag){

        printf("NOT a PRIME NUMBER\n");

    }

    else

        printf("PRIME NUMBER\n");

return 0;

}

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

Ans –

#include<stdio.h>

int main(){

    int num1,num2,lcm,max;

    printf("Enter two Numbers to find LCM\n");

    scanf("%d%d",&num1,&num2);

    max = (num1 > num2) ? num1 : num2;

    while(1){

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

            printf("LCM is %d",max);

            break;

        }

        ++max;

    }

    return 0;

}

1. Write a program to reverse a given number.

Ans –

#include<stdio.h>

int main(){

    int num,rev = 0,x;

    printf("Enter a number\n");

    scanf("%d",&num);

    x = num;

    while(num!=0){

        rev = (rev \* 10) + num%10;

        num =  num/10;

    }

    printf("Entered Number: %d\nReversed Number:%d\n",x,rev);

    return 0;

}

Submitted By – OM PANT