Assignment – 6

Use any loop

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

Solve-

#include<stdio.h>

int main()

{

int n,s=0;

printf(" enter the numbers ");

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

for(int i=1; i<=n; i++){

s=s+I;

}

printf("Some of n natural number is%d\n ",s);

return 0;

}

Output-

enter the numbers 10

Some of n natural number is 55

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

#include<stdio.h>

int main(){

int n,s=0;

printf(" enter the numbers");

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

for(int i=1; i<=n; i++){

s= s+ (2\*i);

}

printf(" the some of first N even natural number is %d\n",s);

return 0;

}

Output-

enter the numbers10

the some of first N even natural number is 110

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

#include<stdio.h>

int main(){

int n,s=0;

printf(" enter the numbers");

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

for(int i=1; i<=n; i++){

s= s+ (2\*i-1);

}

printf(" the some of first N odd natural number is %d\n",s);

return 0;

}

Output-

enter the numbers 10

the some of first N odd natural number is 100

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

Solve-

#include<stdio.h>

int main(){

int n,s=0;

printf(" enter the numbers ");

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

for(int i=1; i<=n; i++){

s=s+(i\*i);

}

printf("%d\n",s);

return 0;

}

Output

enter the numbers 10

385

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

Solve-

#include<stdio.h>

int main(){

int n,s=0;

printf(" enter the numbers ");

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

for(int i=1; i<=n; i++){

s=s+(i\*i\*i);

}

printf("%d\n",s);

return 0;

}

Output-

enter the numbers 10

3025

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

Solve-

#include<stdio.h>

int main()

{

int n,s=1;

printf("enter the factorial number");

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

for(int i=1;i<=n; i++){

s=s\*i;

}

printf(" factorial value is %d",s);

return 0;

}

Output-

enter the factorial number 5

factorial value is 120

7. Write a program to count digits in a given number ?  
solve-

#include<stdio.h>

int main()

{

int n, count=0;

printf(" enter the numbers");

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

while(n!=0){

n=n/10;

count++;

}

printf("counted digit numbers is %d\n",count);

return 0;

}

Output-

enter the numbers 123

counted digit numbers is 3

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

Solve-

#include<stdio.h>

int main()

{

int n,flag=0;

printf("Enter the number");

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

for(int i=2; i<n; i++){

if(n%i==0){

flag=1;

break;

}

}

if(flag==1){

printf("not prime ");

}

else{

printf("prime number");

}

return 0;

}

Output-

Enter the number 3

prime number

9. Write a program to calculate LCM of two numbers ?  
solve-

#include<stdio.h>

int main()

{

int a,b,i;

printf("Enter the number");

scanf("%d%d\n",&a,&b);

for( i=1; i<=a\*b; i++)

if(i%a==0 && i%b==0)

break;

printf("LCM IS %d\n",i);

return 0;

}

Output-

Enter the number2

4

LCM IS 2

10. Write a program to reverse a given number ?  
solve-

#include<stdio.h>

int main()

{

int n,r;

printf(" Enter the numbers");

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

while(n>0){

r= n%10;

printf(" %d",r);

n=n/10;

}

return 0;

}

Output –

Enter the numbers 123

321