**Assignment - 6 A Job Ready Bootcamp in C++, DSA and IOT MySirG**

**Use any loop**

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

#include<stdio.h>

int main()

{

int n,sum=0;

printf("Enter a number :");

scanf("%d",&n);

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

sum = sum + i;

printf("%d",sum);

return 0;

}

1. 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++)

{

if(i%2==0)

sum = sum + i;

}

printf("%d",sum);

return 0;

}

1. 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++)

{

if(i%2==1)

sum = sum + i;

}

printf("%d",sum);

return 0;

}

1. 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("%d",sum);

return 0;

}

1. 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("%d",sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int num,i,res,fact=1;

printf("Enter a number : ");

scanf("%d",&num);

for(i=1;i<num;i++)

fact = fact \*(num-i);

res = num \* fact;

printf("Factorial of %d! is : %d",num,res);

return 0;

}

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

#include<stdio.h>

int main()

{

int n,count=0;

printf("enter a number : ");

scanf("%d",&n);

while(n!=0)

{

n = n/10;

count++;

}

printf("Number of digit is %d:",count);

return 0;

}

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

#include<stdio.h>

int main()

{

int i,n,flag=0;

printf("enter number : ");

scanf("%d",&n);

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

{

if(n%i==0)

flag = 1;

break;

}

if(flag == 0)

printf("%d is a Prime number:",n);

else

printf("%d is not a Prime number:",n);

return 0;

}

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

#include<stdio.h>

int main()

{

int i,a,b;

printf("enter two number : ");

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

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

{

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

break;

}

printf("LCM is %d:",i);

return 0;

}

1. Write a program to reverse a given number.

#include<stdio.h>

int main()

{

int n,i,rem,rev;

printf("enter a number : ");

scanf("%d",&n);

while(n!=0)

{

rem = n%10;

n = n/10;

rev = rev\*10 + rem;

}

printf("Reverse is %d:",rev);

return 0;

}