        //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 i=1,n,sum=0;

printf("Enter a Number:-");

scanf("%d",&n);

while(i<=n)

{

    sum=sum+i;

    i++;

}

printf("The sum is %d",sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i=1,n,sum=0;

printf("Enter a Number:-");

scanf("%d",&n);

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

{

    if(i%2==0)

    sum=sum+i;

}

printf("The sum is %d",sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i=1,n,sum=0;

printf("Enter a Number:-");

scanf("%d",&n);

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

{

    if(i%2)

    sum=sum+i;

}

printf("The sum is %d",sum);

return 0;

}

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

#include<stdio.h>

int main()

{

int i=1,n,sum=0,square;

printf("Enter a Number:-");

scanf("%d",&n);

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

{

    square=i\*i;

    sum=sum+square;

}

printf("The sum is %d",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,cube;

    printf("Enter a Number:-");

    scanf("%d",&n);

    for(i=1;i<=n;i++)

    {

        cube=i\*i\*i;

        sum=sum+cube;

    }

    printf("%d",sum);

    return 0;

}

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

#include<stdio.h>

int main(){

    int i,n,fact=1;

    printf("Enter a Number:-");

    scanf("%d",&n);

    for(i=1;i<=n;i++)

    {

    fact=fact\*i;

    }

    printf("The Factorial of %d is %d",n,fact);

    return 0;

}

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

#include<stdio.h>

int main()

{

    int i,count=0,x;

    printf("Enter a Number:-");

    scanf("%d",&x);

    while(x!=0){

        x=x/10;

        count++;

        break;

    }

    printf("%d",count);

    return 0;

}

/\*8. 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 a Number:-");

    scanf("%d",&n);

    for(i=2;i<n/2;i++)

    {

        if(n%i==0){

        flag=1;

        break;

        }

    }

    if (flag==1)

    printf("Not Prime");

    else

    printf("Prime");

    return 0;

}

// 9. 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;

}

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

#include<stdio.h>

int main()

{

    int n,i,remainder,reverse=0;

    printf("Enter a Number:-");

    scanf("%d",&n);

    while(n!=0)

    {

        remainder=n%10;

        n=n/10;

        reverse=reverse\*10+remainder;

    }

    printf("%d",reverse);

    return 0;

}