

# **iNeuron**

**Course: A job Ready Bootcamp in C++, DSA and IOT**

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**Assignment no: 6**

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

### **Program**

```
#include<stdio.h>

int main()
{
    int n,a=0,i=1;
    printf("Enter a number:");
    scanf("%d",&n);
    while(i<=n)
    {
        a=a+i;
        i++;
    }
    printf("Sum of number:%d",a);
    return 0;
}
```

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

### **Program**

```
#include<stdio.h>

int main()
{
    int n,i,sum=0;
    printf("Enter a number:");
```

```

scanf("%d",&n);

for(i=2;i<=n;i+=2)
{
    sum=sum+i;
}

printf("Sum of even number:%d",sum);

return 0;

}

```

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

### **Program**

```

#include<stdio.h>

int main()
{
    int n,i=1,sum=0;

    printf("Enter a number:");

    scanf("%d",&n);

    do
    {
        sum=sum+i;

        i+=2;

    }while(i<=n);

    printf("Sum of odd no:%d",sum);

    return 0;
}

```

```
}
```

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

### **Program**

```
#include<stdio.h>

int main()
{
    int n,i=1,sum=0;
    printf("Enter a number:");
    scanf("%d",&n);
    while(i<=n)
    {
        sum=sum+(i*i);
        i++;
    }
    printf("Sum of square no:%d",sum);
    return 0;
}
```

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

### **Program**

```
#include<stdio.h>

int main()
```

```

{
    int n,i=1,sum=0;
    printf("Enter a number:");
    scanf("%d",&n);
    while(i<=n)
    {
        sum=sum+(i*i*i);
        i++;
    }
    printf("Sum of square no:%d",sum);
    return 0;
}

```

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

### **Program**

```

#include<stdio.h>

int main()
{
    int n,i,a=1,b;
    printf("Enter a number:");
    scanf("%d",&n);
    b=n;
    for(i=2;n>=i;n--)
        a=a*n;
}

```

```

        if(n==0)

            printf("Factorial of %d is:%d",b,1);

        else

            printf("Factorial of %d is:%d",b,a);

        return 0;

    }

```

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

### **Program**

```

#include<stdio.h>

int main()
{
    int n,count=0,a;

    printf("Enter a number:");

    scanf("%d",&n);

    a=n;

    while(n)
    {
        n=n/10;

        count++;

    }

    printf("Given number %d digits is %d",a,count);

    return 0;

}

```

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

### **Program**

```
#include<stdio.h>

int main()
{
    int n,i;
    printf("Enter a number:");
    scanf("%d",&n);
    for(i=2;i<n;i++){
        if(n%i==0)
            break;
    }
    if(n==i)
        printf("%d is a prime number",n);
    else
        printf("%d is not a prime number",n);
    return 0;
}
```

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

### **Program**

```
#include<stdio.h>

int main(){

    int a,b,i,x,nbr=1;

    printf("Enter a two numbers:");

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

    for(i=2;i<=a||i<=b;i++)

    {

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

            a=a/i;

            b=b/i;

            nbr=nbr*i;

            i=1;

        }

        else{

            if(a%i==0||b%i==0){

                if(a%i==0)

                    a=a/i;

                else

                    b=b/i;

                nbr=nbr*i;

                i=1;

            }

        }

    }

}
```



```
    }  
    }  
    printf("LCM is %d",nbr);  
    return 0;  
}
```

10 Write a program to reverse a given number.

### **Program**

```
#include<stdio.h>  
  
int main()  
{  
    int n,a,b=0;  
    printf("Enter a number:");  
    scanf("%d",&n);  
    while(1)  
    {  
        a=n%10;  
        b=b+a;  
        if(n==a)  
            break;  
        b=b*10;  
        n=n/10;  
    }  
    printf("Reverse no is %d",b);
```

```
return 0;
```

```
}
```