1. CHECKING POSITIVE, NEGATIVE OR ZERO

Write a C++ program to input a number and check whether it is negative, positive or zero.

```
#include <iostream>
using namespace std;
int main()
{
        int N;
        cout<<"Enter the number";
        cin>>N;
        if (N>0)
                cout<<"\n The given number is positive";
        else if(N<0)
                cout<<"\n The given number is negative";
        else
                cout<<"\n The given number is zero";
        return 0;
}
```

2.MULTIPLICATION TABLE

Write a C++ program to display the multiplication table of a number having 12 rows.

```
#include <iostream>
using namespace std;
int main()
{
        int n, i, p;
        cout<<"Enter the number";
        cin>> n;
        cout<<"\n MULTIPLICATION TABLE";
        for(i=1;i<=12;i++)
        {
                p=i*n;
                cout<<"\n"<<i<<" * "<<n<<" = "<<p;
        }
        return 0;
}
```

3.SUM OF DIGITS

Write a program to find the sum of the digits of an integer number.

```
#include <iostream>
using namespace std;
int main()
{
        int num, sum=0;
        cout<<"Enter the number";
        cin>>num;
        while(num>0)
        {
        sum=sum+num%10;
        num=num/10;
        }
        cout<<"\nSum of digits :"<<sum;
```

```
        return 0;
        }
```

4.SUM OF SQUARES

Write a program to find the sum of the squares of the first N natural numbers without using any formula.

```
#include <iostream>
using namespace std;
int main()
{
        int  N,  i,  sum=0;
        cout<<"Enter the limit";
        cin>>N;
        for (i=1; i<=N; i++)
                sum = sum + i*i;
        cout<<"\n Sum of squares of first "<<N<<"natural numbers="<<sum;
        return 0;
        }
```

5. FIBONACCI SERIES

Write a program to display the first N terms of Fibonacci series.

```
#include  <iostream>
using namespace std;
int main()
{
        int  i,  N, first=0, second=1, third;
        cout<<"How many terms";
        cin>>N;
        cout<<"Fibanocci Series\n";
        for(i=1; i<=N;i++)
        {       third=first+second;
                cout<<"\n"<<third;
                first=second;
                second=third;
        }
        return 0;
}
```

6. DISPLAY DAY NAME

Write a program using switch to display the name of the day when we input a day number

```
#include <iostream>
using  namespace std;
int  main()
{
        int  day;
        cout<<"\n Enter the day number";
        cin>>day;
        switch(day)
        {
        case  1:
                cout <<"Sunday";
                break;
        case  2:
```

```
                cout <<"Monday";
                break;
        case  3:
                cout <<"Tuesday";
                break;
        case  4:
                cout <<"Wednesday";
                break;
        case  5:
                cout <<"Thursday";
                break;
        case  6:
                cout <<"Friday";
                break;
        case  7:
                cout <<"Saturday";
                break;
        default:
                cout<<"Invalid Choice";
        }
return 0;
}
```

7. COUNT OF EVEN AND ODD NUMBERS

Write a C++ program to create an array of 10 numbers and count the number of even numbers and odd numbers in the array

```
 #include <iostream>
using namespace std;
int main()
{       int   A[10], i, even=0, odd=0;
        cout<<"Enter the array elements";
        for (i=0; i<=9;i++)
        {
                cin>>A[i];
                if  (A[i]%2==0)
                        even++;
                else
                        odd++;
        }
        cout<<"\n Number of even numbers="<<even;
        cout<<"\n Number of odd numbers="<<odd;
        return 0;
}
```

8. WORDS OF A STRING

Write a program to input a string and find the number of words in a string.

```
#include  <iostream>
#include  <cstdio>
using namespace std;
int main()
```

```
{
        char  s[30];
        int   wc=1,i;
        cout<<"Enter a string";
        gets(s);
        for (i=0; s[i]!='\0'; i++)
                if (s[i] ==' ')
                        wc++;
        }
        cout<< "Number of words="<<wc;
        return 0;
        }
```

9. CHECKING PRIME NUMBER

Write a program to check whether a number is a prime or not.

```
#include  <iostream>
#include  <cstdio>
using namespace std;
int main()
{
short  int  n, i ,flag=1;
cout<<"Enter the number";
cin>>n;
for (i=2; i<=n/2; i++)
{
        if (n %i==0)
        {
                flag=0;
                break;
        }
}
If   (flag==1)
        cout<<n<<"  is a prime number";
else
        cout<<n<<"  is not a prime number";
return 0;
}
```

10. FACTORIAL OF A NUMBER

Write a program to find the factorial of a number with the help of a user-defined function

```
#include  <iostream>
using namespace std;
int  factorial(int );
int main()
{
int   num,fact;
cout<<"Enter a number";
cin>>num;
```

```
fact=factorial(num);
cout<<"Factorial of  "<<num<<" is " <<fact;
return 0;
}
int  factorial(int n)
{
        int   i,f=1;
        for (i=1; i<=n; i++)
                f=f * i;
        return  f;
}
```