

1 Write a program to Swap to two numbers.

```
#include <iostream >
using namespace std;
int main() {
int a=4,b=2,c;
c=a;
a=b;
b=c;
cout<<"Value of a is "<<a<<endl;
cout<<"Value of b is "<<b;
return 0;
}
```

2 Write a program to find the largest number among three numbers entered by the user

```
#include<iostream>

using namespace std;

int main()
{
    int a,b,c,d;

    cout << "Please enter the Three Different Number = ";
    cin >>a>>b>>c;

    d=((a>b&&a>c) ? a:(b >c) ?b:c);

    cout << "\nLargest number among three is = " <<d;

    return 0;
}
```

3 Write a program to check whether a year entered by a user is Leap year or not

```
#include<iostream>

using namespace std;

int main()
{
    int a;
    cout<<"Enter the Year: ";
    cin>>a;
    if((a%4==0) && (a%100!=0))
        cout<<"\nIt is a Leap Year";
    else if(a%400==0)
        cout<<"\nIt is a Leap Year";
    else
        cout<<"\nIt is not a Leap Year";
    cout<<endl;
    return 0;
}
```

4 Write a program to display Fibonacci Series upto nth term

```
#include <iostream>

using namespace std;

int main() {
    int a= 0,b=1,c=0,n;

    cout << "Enter the number of terms: ";
    cin >> n;

    cout << "Fibonacci Series: ";

    for (int i = 1; i <= n; ++i) {
        // Prints the first two terms.
        if(i == 1) {
            cout << a << " , ";
            continue;
        }
        if(i == 2) {
            cout << b << " , ";
            continue;
        }
        c =a+b;
        a=b;
        b =c;
        cout << c << " , ";
    }
    return 0;
}
```

5 Write a program to check whether a number is Prime or Not

```
#include <iostream>

using namespace std;

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

    cout << "Enter any number n: "; cin>>n;

    for (i = 1; i <= n; i++)
    {
        if (n % i == 0)
        {
            a++;
        }
    }
    if (a == 2)
    {
        cout << "It is a Prime number" << endl;
    }
    else
    {
        cout << "It is not a Prime number" << endl;
    }
    return 0;
}
```

6 Print this pattern using loops

For n=5

```
#include<iostream>

using namespace std;

int main()
{
    int i,j,k;
    for(i=1; i<=5; i++)
    {
        for(k=5; k>i; k--)
            cout<<" ";
        for(j=0; j<i; j++)
            cout<<"* ";
        cout<<endl;
    }
    cout<<endl;
    return 0;
}
```

7 Write a program that takes n elements from the user and displays the second largest element of an array

```
#include <iostream>

using namespace std;

int main(){
    int n, num[50], largest, second;
    cout<<"Enter number of elements: ";
    cin>>n;
    for(int i=0; i<n; i++){
        cout<<"Enter Array Element"<<(i+1)<<": ";
        cin>>num[i];
    }
    if(num[0]<num[1]){
        largest = num[1];
        second = num[0];
    }
    else{
        largest = num[0];
        second = num[1];
    }
    for (int i = 2; i < n ; i ++ ) {
        if (num[i] > largest) {
            second = largest;
            largest = num[i];
        }
        else if (num[i] > second && num[i] != largest) {
            second = num[i];
        }
    }
}
```

```
cout<<"Second Largest Element in array is: "<<second;  
return 0;  
}
```