1. ***Write a program in C++ to find the sum of first 10 natural numbers.***

```cpp
#include <iostream>

using namespace std;

int main()
{int sum;
sum=0;
    cout << "the sum of the first 10 natural numbers is " << endl;
    for (int num=0; num<11;num=num+1){
       sum=sum+num;









    }
    cout<<sum<<endl;

    return 0;
}
```

```
the sum of the first 10 natural numbers is
55

Process returned 0 (0x0)   execution time : 0.031 s
Press any key to continue.
```

2. ***Write a C++ program to Print a Table of any Number.***

The output should look like this:

$2 \times 1 = 2$

$2 \times 2 = 4$

```
using namespace std;

int main()
{int num;
int result;
    cout << "Enter your number you want the table of " << endl;
    cin>>num;
    for (int i=0; i<11;i=i+1){
        result=num*i;
        cout<<num<<"x"<<i<<"="<<result<<endl;









    }

    return 0;
}
```

```
Enter your number you want the table of
3
3x0=0
3x1=3
3x2=6
3x3=9
3x4=12
3x5=15
3x6=18
3x7=21
3x8=24
3x9=27
3x10=30

Process returned 0 (0x0)   execution time : 1.981 s
Press any key to continue.
```

3. ***Write a Program to Generate Factorial. A Certain Number Factorial of any number is the product of an integer and all the integers below it for example factorial of 4 is: 4! = 4 * 3 * 2 * 1 = 24***

```
#include <iostream>

using namespace std;

int main()
{int number;
int factorial=1;

cout << "enter the number you want the factorial of" << endl;
cin>>number;
if (number==0){
    number=1;
}
else {for (int i=number-1;i>0;i=i-1){
    number=number*i;



}}
cout<<"your factorial is "<<number<<endl;

    return 0;
}
```

```
enter the number you want the factorial of
5
your factorial is 120

Process returned 0 (0x0)   execution time : 4.626 s
Press any key to continue.
```

4. ***Write a C++ program to generate a Fibonacci sequence up to a certain number input by the user.***

```cpp
#include <iostream>

using namespace std;

int main()
{int x,y,z,result;


    cout << "input your first two numbers of the sequence" << endl;
    cin>>x;
    cin>>y;
    cout << "how many numbers do you want in the sequence" << endl;
    cin>>z;
    cout<<"the sequence is"<<endl;
    for(int i=0;i<=z;i++ ){
    result=x+y;
    x=y;
    y=result;

    cout<<result<<" "<<endl;


    }
```

```
input your first two numbers of the sequence
2
3
how many numbers do you want in the sequence
6
the sequence is
5
8
13
21
34
55
89

Process returned 0 (0x0)   execution time : 2.506 s
Press any key to continue.
```