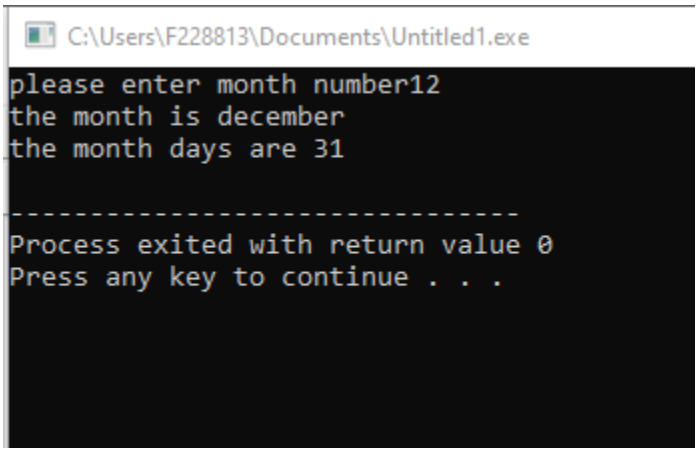
Task 1:

```
#include<iostream>
using namespace std;
int main()
{
	int num;
	cout<<"please enter month number";
	cin>>num;
	switch(num)
	{
	case 1:
		cout<<"the month is january"<<endl;
		cout<<"the month days are 30"<<endl;
		break;
	case 2:
		cout<<"the month is february"<<endl;
		cout<<"the month days are 28"<<endl;
		break;
	case 3:
		cout<<"the month is march"<<endl;
		cout<<"the month days are 31"<<endl;
		break;
	case 4:
		cout<<"the month is april"<<endl;
		cout<<"the month days are 30"<<endl;
		break;
	case 5:
		cout<<"the month is may"<<endl;
		cout<<"the month days are 31"<<endl;
```

```
        break;
case 6:
        cout<<"the month is june"<<endl;
        cout<<"the month days are 30"<<endl;
        break;
case 7:
        cout<<"the month is july"<<endl;
        cout<<"the month days are 31"<<endl;
        break;
case 8:
        cout<<"the month is august"<<endl;
        cout<<"the month days are 31"<<endl;
        break;
case 9:
        cout<<"the month is september"<<endl;
        cout<<"the month days are 30"<<endl;
        break;
case 10:
        cout<<"the month is october"<<endl;
        cout<<"the month days are 31"<<endl;
        break;
case 11:
        cout<<"the month is november"<<endl;
        cout<<"the month days are 30"<<endl;
        break;
case 12:
        cout<<"the month is december"<<endl;
        cout<<"the month days are 31"<<endl;
        break;
```

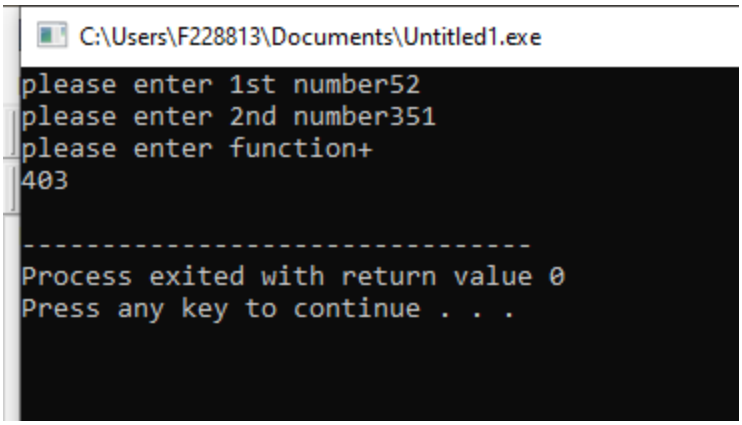
```
        default:
                cout<<"the month number is not correct"<<endl;
                break;
}

}
```



Task 2:

```
#include<iostream>
#include<cmath>
using namespace std;
int main()
{
        double num1,num2;
        char func;
        cout<<"please enter 1st number";
        cin>>num1;
        cout<<"please enter 2nd number";
        cin>>num2;
        cout<<"please enter function";
```

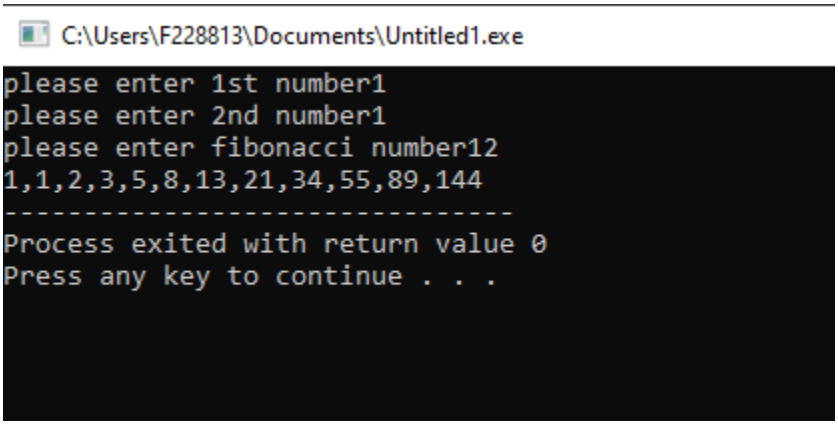
```
        cin>>func;
        switch(func)
        {
        case '+':
                cout<<num1+num2<<endl;
                break;
        case '-':
                cout<<num1-num2<<endl;
                break;
        case '*':
                cout<<num1*num2<<endl;
                break;
        case '/':
                cout<<num1/num2<<endl;
                break;

        default:
                cout<<"the function is not correct"<<endl;
                break;
}

}
```



Task 3:

```
#include<iostream>
#include<assert.h>
using namespace std;
int main()
{

	int num1,num2,fi,sum,c=1;
	cout<<"please enter 1st number";
	cin>>num1;
	cout<<"please enter 2nd number";
	cin>>num2;
	cout<<"please enter fibonacci number";
	cin>>fi;
	cout<<num1<<","<<num2;
	while(fi>=3)
	{
		sum=num1+num2;
		num1=num2;
```

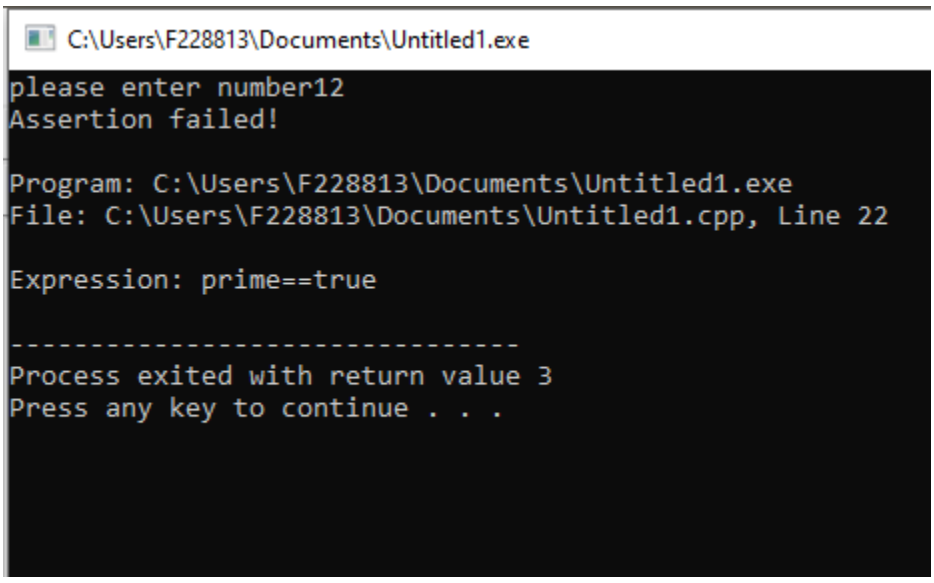
```
            num2=sum;
        cout<<","<<sum;
            fi--;
    }


}
```



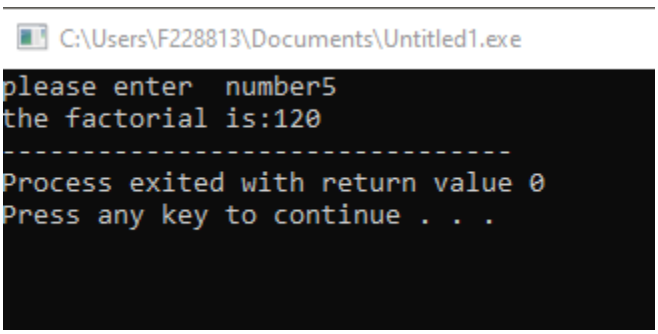
Task 4 :

```
#include<iostream>
#include<assert.h>
using namespace std;
int main()
{

    int c=2,i,num,prime;
    cout<<"please enter number";
    cin>>num;
    prime=true;
    while(c<num)
```

```
        {
                if(num % c==0)
                {

                        prime=false;
                }

                c++;
        }

        assert(prime==true);
                cout<<"prime numbers are good";

}
```



Task 5:

```
#include<iostream>
```

```
#include<assert.h>
using namespace std;
int main()
{

	int num1,fac=1;
	cout<<"please enter  number";
	cin>>num1;

	while(num1>=1)
	{

		fac*=num1;




	num1--;
	}

	cout<<"the factorial is:"<<fac;

}
```