

## lab task 4:

### task 1:

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {  
    int sum = 0;  
    for (int k = 1;  
        k <= 10;  
        k++) {  
        sum += k;  
    }  
}
```

```
cout << "The sum of the first 10 natural numbers is: " << sum << endl;
```

```
return 0;  
}
```

<pre>#include &lt;iostream&gt;  using namespace std;  int main() {     int sum = 0;     for (int k = 1;         k &lt;= 10;         k++) {         sum += k;     }      cout &lt;&lt; "The sum of the first 10 natural numbers is: " &lt;&lt; sum &lt;&lt;         endl;      return 0; }</pre>	<pre>/tmp/QqRISmoqiq.o The sum of the first 10 natural numbers is: 55</pre>
---	---

### task 2:

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {  
    int x;  
    cout <<"enter a number";  
    cin >>x;  
    for(int y=1;y<=10;y++){
```

```
        cout<<x<<"x"<< y<< "="<<x*y<<endl;}  
    return 0;}
```

<pre>#include &lt;iostream&gt;  using namespace std;  int main() {     int x;     cout &lt;&lt;"enter a number";     cin &gt;&gt;x;     for(int y=1;y&lt;=10;y++){          cout&lt;&lt;x&lt;&lt;"x"&lt;&lt; y&lt;&lt; "="&lt;&lt;x*y&lt;&lt;endl;}     return 0;}</pre>	<pre>/tmp/QqRISmoqiq.o enter a number8 8x1=8 8x2=16 8x3=24 8x4=32 8x5=40 8x6=48 8x7=56 8x8=64 8x9=72 8x10=80</pre>
--	--

### task 3:

```
#include <iostream>
```

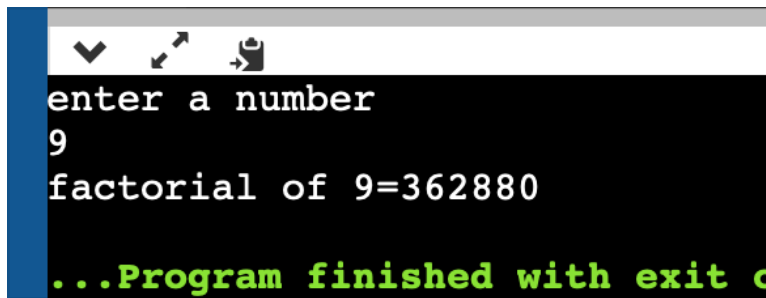
```
using namespace std;
```

```
int main() {  
    int a;  
    int b = 1;  
    cout <<"enter a number";  
    cin >>a;  
    for (int c = 1;c<=a;c++)  
    {
```

```

        b=b*c;
    }
    cout<<"factorial of "<<a<<"="<<b;
    return 0;
}

```



```

enter a number
9
factorial of 9=362880
...Program finished with exit c

```

task 4:

```
#include <iostream>
```

```
using namespace std;
```

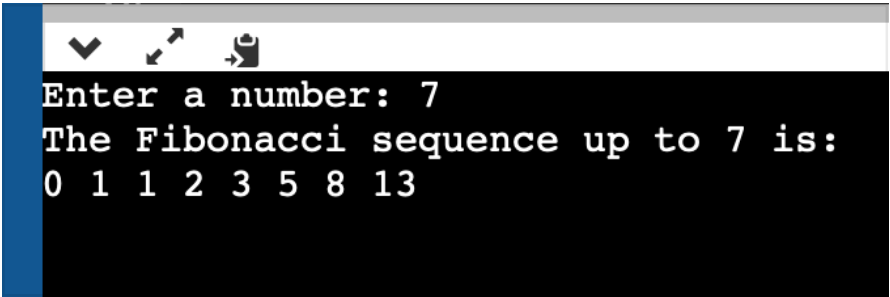
```

int main() {
    int k;
    cout << "Enter a number: ";
    cin >> k;

    int x = 0, y = 1, z;
    cout << "The Fibonacci sequence up to " << k << " is: " << endl;
    cout << x << " " << y << " ";
    for (int i = 2; i <= k; i++) {
        z = x + y;
        cout << z << " ";
        x = y;
        y = z;
    }
    cout << endl;

    return 0;
}

```



```
Enter a number: 7
The Fibonacci sequence up to 7 is:
0 1 1 2 3 5 8 13
```