

```
//Iterative Program
```

```
#include<iostream>
using namespace std;
```

```
int main()
{
    int n1=0,n2=1,n3,i,n;
    cout<<"Enter number of elements : ";
    cin>>n;
    cout<<endl;
    cout<<n1<<"    "<<n2<<"    ";
    for(i=2;i<n;i++)
    {
        n3=n1+n2;
        cout<<n3<<"    ";
        n1=n2;
        n2=n3;
    }
    cout<<endl;
    return 0;
}
```

```
/*
```

OUTPUT:

Enter number of elements : 20

0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987
1597 2584 4181

```
*/
```

```
//Recursive Program
```

```
#include<iostream>
using namespace std;
```

```
int fibonacci(int n)
{
    if(n<=1)
    {
        return n;
    }
    else
    {
        return fibonacci(n-1)+fibonacci(n-2);
    }
}
```

```
int main()
{
    int n,i;
    cout<<"Enter number of elements : ";
    cin>>n;
    cout<<endl;

    for(i=0;i<n;i++)
    {
        cout<<fibonacci(i)<<"  ";
    }
    cout<<endl;
}

/*
```

OUTPUT:

Enter number of elements : 10

0 1 1 2 3 5 8 13 21 34

*/