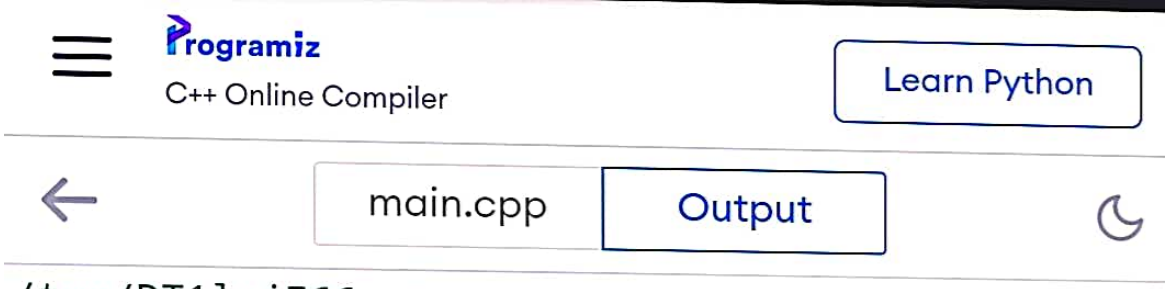
Programiz
C++ Online Compiler

Learn Python

main.cpp | Output

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

int main() {
    int year;

    cout << "Enter a year: ";
    cin >> year;

    if (year % 4 == 0) {
        if (year % 100 == 0) {
            if (year % 400 == 0)
                cout << year << " is a
                    leap year.";
            else
                cout << year << " is not a
                    leap year.";
        }
        else
            cout << year << " is a leap
                year.";
    }
    else
        cout << year << " is not a leap
            year.";

    return 0;
}
```

Run




```
/tmp/DT1lpjE66y.o
Enter a year: 2021
2021 is not a leap year.
```

```cpp

int main()
{
    int n, i;
    float num[100], sum=0.0, average;

    cout << "Enter the numbers of data: ";
    cin >> n;

    while (n > 100 || n <= 0)
    {
        cout << "Error! number should in
            range of (1 to 100)." << endl;
        cout << "Enter the number again: "
            ;
        cin >> n;
    }

    for(i = 0; i < n; ++i)
    {
        cout << i + 1 << ". Enter number:
            ";
        cin >> num[i];
        sum += num[i];
    }

    average = sum / n;
    cout << "Average = " << average;

    return 0;
}
```

```
/tmp/DT1lpjE66y.o
Enter the numbers of data: 3
1. Enter number: 1
2. Enter number: 2
3. Enter number: 3
Average = 2
```

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main.cpp | Output

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

int main()
{
    int a = 5, b = 10, temp;

    cout << "Before swapping." << endl;
    cout << "a = " << a << ", b = " << b
        << endl;

    temp = a;
    a = b;
    b = temp;

    cout << "\nAfter swapping." << endl;
    cout << "a = " << a << ", b = " << b
        << endl;

    return 0;
}
```

Run

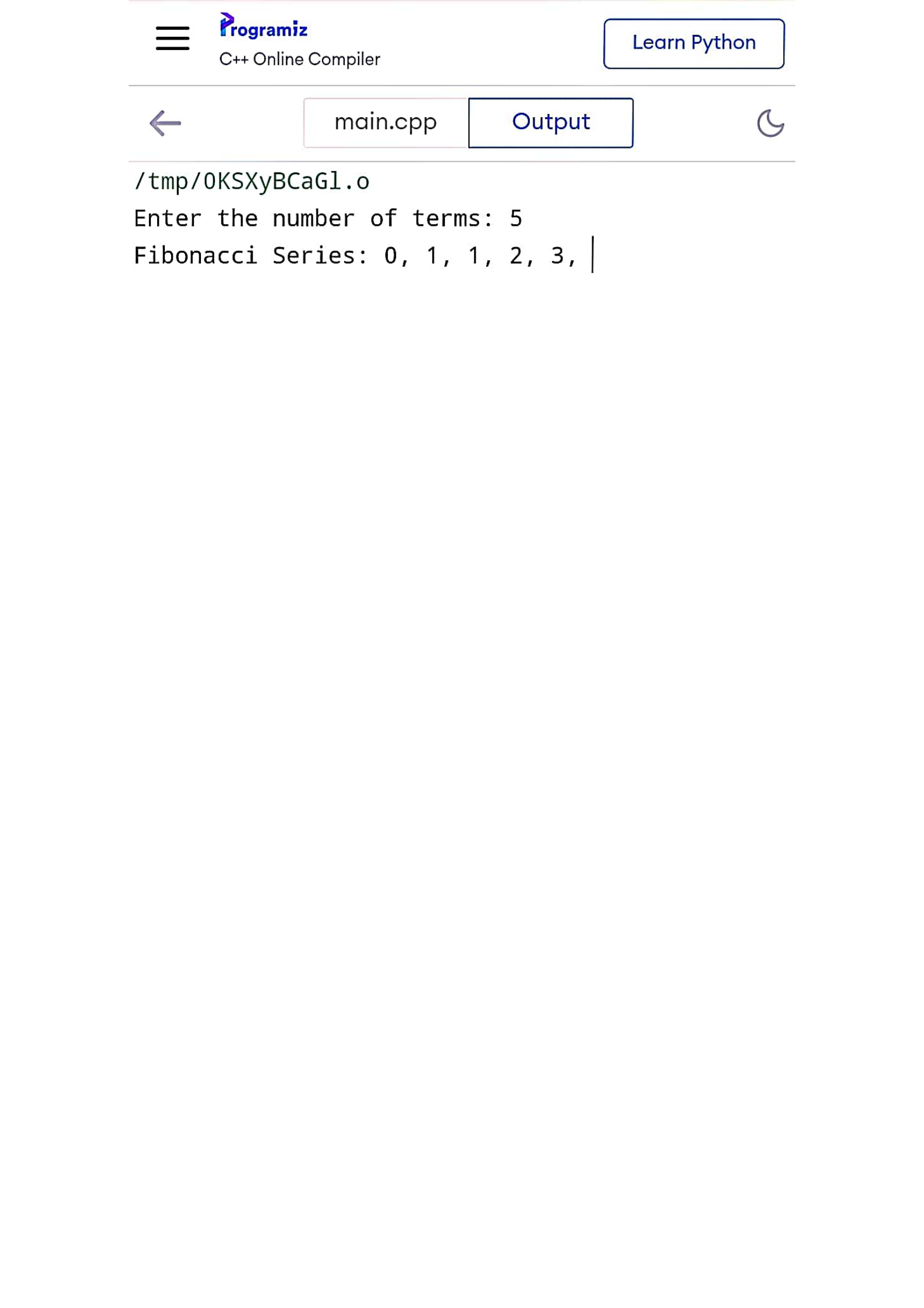
```
/tmp/0KSXyBCaGl.o
Before swapping.
a = 5, b = 10

After swapping.
a = 10, b = 5
```

main.cpp | Output

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

int main() {
    float n1, n2, n3;

    cout << "Enter three numbers: ";
    cin >> n1 >> n2 >> n3;

    if(n1 >= n2 && n1 >= n3)
        cout << "Largest number: " << n1;

    if(n2 >= n1 && n2 >= n3)
        cout << "Largest number: " << n2;

    if(n3 >= n1 && n3 >= n2)
        cout << "Largest number: " << n3;

    return 0;
}
```

```
/tmp/0KSXyBCaGl.o
Enter three numbers: 12
13
16
Largest number: 16
```

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

int main() {
    int n, t1 = 0, t2 = 1, nextTerm = 0;

    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 << t1 << ", ";
            continue;
        }
        if(i == 2) {
            cout << t2 << ", ";
            continue;
        }
        nextTerm = t1 + t2;
        t1 = t2;
        t2 = nextTerm;

        cout << nextTerm << ", ";
    }
    return 0;
}
```


Programiz
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main.cpp
Output
/tmp/OKSXyBCaGl.o
Enter the number of terms: 5
Fibonacci Series: 0, 1, 1, 2, 3,

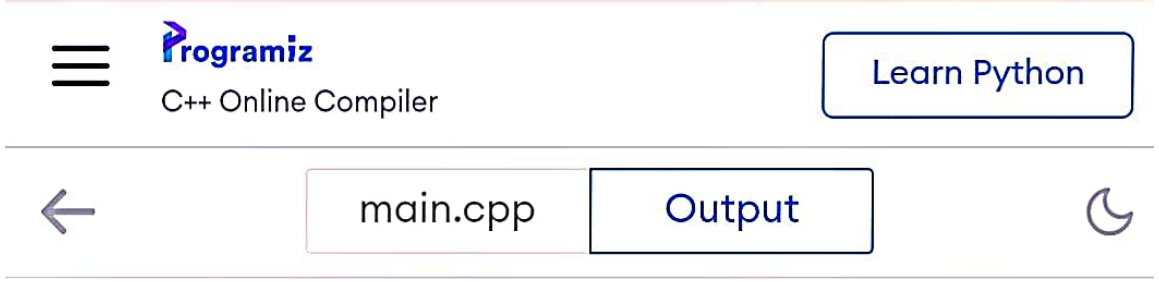
```cpp
#include <iostream>
using namespace std;

int main() {
    int i, n;
    bool isPrime = true;

    cout << "Enter a positive integer: ";
    cin >> n;

    // 0 and 1 are not prime numbers
    if (n == 0 || n == 1) {
        isPrime = false;
    }
    else {
        for (i = 2; i <= n / 2; ++i) {
            if (n % i == 0) {
                isPrime = false;
                break;
            }
        }
    }
    if (isPrime)
        cout << n << " is a prime number";
    else
        cout << n << " is not a prime
            number";

    return 0;
}
```




```
/tmp/OKSXyBCaGl.o
Enter a positive integer: 51
51 is not a prime number
```