



main.cpp

Output



```
1  #include <iostream>
2  using namespace std;
3
4  int main()
5  {
6      int a = 5, b = 10, temp;
7
8      cout << "Before swapping." << endl;
9      cout << "a = " << a << ", b = " << b
      << endl;
10
11     temp = a;
12     a = b;
13     b = temp;
14
15     cout << "\nAfter swapping." << endl;
16     cout << "a = " << a << ", b = " << b
        << endl;
17
18     return 0;
19 }
```

Run



main.cpp

Output



/tmp/vbc8pHNsvD.o

Before swapping.

a = 5, b = 10

After swapping.

a = 10, b = 5

|



```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      float n1, n2, n3;
6
7      cout << "Enter three numbers: ";
8      cin >> n1 >> n2 >> n3;
9
10     if(n1 >= n2 && n1 >= n3)
11         cout << "Largest number: " << n1;
12
13     if(n2 >= n1 && n2 >= n3)
14         cout << "Largest number: " << n2;
15
16     if(n3 >= n1 && n3 >= n2)
17         cout << "Largest number: " << n3;
18
19     return 0;
20 }
```

[Run](#)



main.cpp

Output



/tmp/1q0NIgdfX0.o

Enter three numbers: 2.3

8.3

2.7

Largest number: 8.3|



```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int year;
6
7      cout << "Enter a year: ";
8      cin >> year;
9
10     if (year % 4 == 0) {
11         if (year % 100 == 0) {
12             if (year % 400 == 0)
13                 cout << year << " is a
                    leap year.";
14             else
15                 cout << year << " is not a
                    leap year.";
16         }
17         else
18             cout << year << " is a leap
                    year.";
19     }
20     else
21         cout << year << " is not a leap
                    year.";
22
23     return 0;
24 }
```

[Run](#)



main.cpp

Output



/tmp/1q0NIgdfX0.o

Enter a year: 2017

2017 is not a leap year.



main.cpp

Output



```
1
2  #include<iostream>
3  using namespace std;
4  int main()
5  {
6  int sum = 0, n;
7  int a = 0;
8  int b = 1;
9  cout << "Enter the nth value: ";
10 cin >> n;
11 cout << "Fibonacci series: ";
12 while(sum <= n)
13 {
14 cout << sum << " ";
15 a = b; // swap elements
16 b = sum;
17 sum = a + b; // next term is the sum of
    the last two terms
18 }
19 return 0;
20 }
21 |
```

[Run](#)



main.cpp

Output



/tmp/DgFtXXIQeM.o

Enter the nth value: 1000

Fibonacci series: 0 1 1 2 3 5 8 13 21 34 55 89
144 233 377 610 987 |



main.cpp

Output



```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int i, n;
6      bool isPrime = true;
7
8      cout << "Enter a positive integer: ";
9      cin >> n;
10
11     // 0 and 1 are not prime numbers
12     if (n == 0 || n == 1) {
13         isPrime = false;
14     }
15     else {
16         for (i = 2; i <= n / 2; ++i) {
17             if (n % i == 0) {
18                 isPrime = false;
19                 break;
20             }
21         }
22     }
23     if (isPrime)
24         cout << n << " is a prime number";
25     else
26         cout << n << " is not a prime
27             number";
28
29     return 0;
30 }
```

Run



main.cpp

Output



```
/tmp/GlIO6GkM2T.o
```

```
Enter a positive integer: 30
```

```
30 is not a prime number|
```