

main.cpp



Run

Output

Clear

```
1 #include <iostream>
2
3 int main() {
4     int num1, num2, num3;
5     double average;
6
7     std::cout << "Enter three integers: ";
8     std::cin >> num1 >> num2 >> num3;
9
10    average = (num1 + num2 + num3) / 3.0;
11
12    std::cout << "Average of the three numbers:
13              " << average << std::endl;
14
15    return 0;
}
```

```
/tmp/TGEZk3NkLo.o
Enter three integers: 1
23
45
Average of the three numbers: 23
|
```



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Run

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Clear

```
1 #include <iostream>
2
3 class Complex {
4 private:
5     double real;
6     double imag;
7
8 public:
9     Complex(double r = 0.0, double i = 0.0) :
10         real(r), imag(i) {}
11
12     Complex operator+(const Complex& other)
13         const {
14         return Complex(real + other.real, imag
15             + other.imag);
16     }
17
18 void display() const {
19     if (imag >= 0)
20         std::cout << real << " + " << imag
21             << "i";
22     else
23         std::cout << real << " - " << -imag
24             << "i";
25 }
26 };
27
28 int main() {
29     Complex num1(2.0, 3.0);
30     Complex num2(1.5, 2.5);
31
32     Complex sum = num1 + num2;
33
34     std::cout << "Result of addition: ";
35     sum.display();
36     std::cout << std::endl;
37
38     return 0;
39 }
```

/tmp/TGEZk3NkLo.o
Result of addition: 3.5 + 5.5i



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```
1 #include <iostream>
2
3 class Rectangle {
4 private:
5     double length;
6     double width;
7
8 public:
9
10     Rectangle(double l, double w) : length(l),
        width(w) {
11         std::cout << "Rectangle object created
            ." << std::endl;
12     }
13
14     // Destructor
15     ~Rectangle() {
16         std::cout << "Rectangle object
            destroyed." << std::endl;
17     }
18
19     double area() {
20         return length * width;
21     }
22 };
23
24 int main() {
25
26     Rectangle rect(5.0, 3.0);
27
28
29     std::cout << "Area of the rectangle: " <<
        rect.area() << std::endl;
30
31     return 0;
32 }
33
```

```
/tmp/TGEZk3NkLo.o
Rectangle object created.
Area of the rectangle: 15
Rectangle object destroyed.
```



main.cpp



Run

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Clear

```
1 #include <iostream>
2
3 using namespace std;
4
5 int main() {
6     int num1, num2;
7
8     cout << "Enter two positive integers: ";
9     cin >> num1 >> num2;
10
11     int gcd;
12
13     do {
14         if (num1 > num2) {
15             num1 -= num2;
16         } else {
17             num2 -= num1;
18         }
19     } while (num1 != num2);
20
21     gcd = num1;
22
23     cout << "The GCD of " << num1 << " and " <<
24         num2 << " is " << gcd << endl;
25
26     return 0;
27 }
```

```
/tmp/TGEZk3NkLo.o
Enter two positive integers: 23
24
The GCD of 1 and 1 is 1
|
```



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Run

Output

Clear

```
1 #include <iostream>
2
3 using namespace std;
4
5 int main() {
6     int num;
7     bool isPrime = true;
8
9     cout << "Enter a positive integer: ";
10    cin >> num;
11
12    // 0 and 1 are not prime numbers
13    if (num <= 1) {
14        isPrime = false;
15    } else {
16        for (int i = 2; i <= num / 2; ++i) {
17            if (num % i == 0) {
18                isPrime = false;
19                break;
20            }
21        }
22    }
23
24    if (isPrime) {
25        cout << num << " is a prime number." <<
            endl;
26    } else {
27        cout << num << " is not a prime number
            ." << endl;
28    }
29
30    return 0;
31 }
```

```
/tmp/I7HYmbJ9vo.o
Enter a positive integer: 7
7 is a prime number.
```