



(globals)

Project Classes Debug Increment.cpp Add operators.cpp

```
1  #include <iostream>
2  using namespace std;
3  class Complex {
4  private:
5      double real;
6      double imag;
7  public:
8      Complex(double r = 0, double i = 0) : real(r), imag(i) {}
9      Complex operator+(const Complex& other) const {
10         return Complex(real + other.real, imag + other.imag);
11     }
12     void display() const {
13         cout << real << " + " << imag << "i" << endl;
14     }
15 };
16
17 int main() {
18     Complex c1(3.0, 4.0);
19     Complex c2(1.0, 2.0);
20
21     Complex c3 = c1 + c2;
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Add operators.exe
- Output Size: 1.83374404907227 MiB
- Compilation Time: 0.38s
```

```
c1: 3 + 4i
c2: 1 + 2i
c3 (c1 + c2): 4 + 6i
```

```
-----
Process exited after 0.1046 seconds with return value 0
Press any key to continue . . .
```



(globals)

Project Classes Debug Increment.cpp Add operators.cpp Overload.cpp

```
5     double real;
6     double imag;
7 public:
8     Complex(double r = 0, double i = 0) : real(r), imag(i) {}
9     friend ostream& operator<<(ostream& os, const Complex& c);
10 };
11 ostream& operator<<(ostream& os, const Complex& c) {
12     os << c.real << " + " << c.imag << "i";
13     return os;
14 }
15
16 int main() {
17     Complex c1(3.0, 4.0);
18     Complex c2(1.0, 2.0);
19
20     cout << "c1: " << c1 << endl;
21     cout << "c2: " << c2 << endl;
22
23     return 0;
24 }
25
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Overload.exe
- Output Size: 1.83334827423096 MiB
- Compilation Time: 0.36s
```

```
c1: 3 + 4i
c2: 1 + 2i
```

```
-----
Process exited after 0.1152 seconds with return value 0
Press any key to continue . . .
```




(globals)

Project Classes Debug Increment.cpp Add operators.cpp Overload.cpp Overload == cpp.cpp

```
23
24     cout << "c2: ";
25     c2.display();
26
27     cout << "c3: ";
28     c3.display();
29
30     if (c1 == c2) {
31         cout << "c1 and c2 are equal." << endl;
32     } else {
33         cout << "c1 and c2 are not equal." << endl;
34     }
35
36     if (c1 == c3) {
37         cout << "c1 and c3 are equal." << endl;
38     } else {
39         cout << "c1 and c3 are not equal." << endl;
40     }
41
42     return 0;
43 }
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Overload == cpp.exe
- Output Size: 1.83376312255859 MiB
- Compilation Time: 0.38s
```

```
c1: 3 + 4i
c2: 1 + 2i
```

```
-----
Process exited after 0.01911 seconds with return va
lue 0
Press any key to continue . . . |
```




```
1  #include <iostream>
2  #include <vector>
3  #include <stdexcept>
4
5  using namespace std;
6
7  class Matrix {
8  private:
9      vector< vector<int> > data;
10     int rows, cols;
11
12 public:
13     // Constructor to initialize a matrix with given dimensions
14     Matrix(int r, int c) : rows(r), cols(c), data(r, vector<int>(c)) {}
15
16     // Function to fill the matrix with values
17     void fill() {
18         cout << "Enter the elements of the matrix (" << rows << "x" << cols << "): ";
19         for (int i = 0; i < rows; ++i) {
20             for (int j = 0; j < cols; ++j) {
21                 cin >> data[i][j];
22             }
23         }
24     }
25 }
```

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Matrix Mul.exe
- Output Size: 1.87573719024658 MiB
- Compilation Time: 0.47s
```

Enter the number of rows and columns for the first matrix: 2

Enter the elements of the matrix (2x2):

2
2
2
2

Enter the number of rows and columns for the second matrix: 2

2

Enter the elements of the matrix (2x2):

3
3
3
3

Result of matrix multiplication:

12 12
12 12

Process exited after 13.58 seconds with return value 0

Press any key to continue . . . |



```
46
47 int main() {
48     int size;
49
50     cout << "Enter the size of the array: ";
51     cin >> size;
52
53     Array arr(size);
54     arr.fill();
55
56     try {
57         cout << "Array elements are:" << endl;
58         for (int i = 0; i < size; ++i) {
59             cout << arr[i] << " ";
60         }
61         cout << endl;
62
63         // Test accessing an out-of-bounds index
64         cout << "Accessing element at index " << size << ": " << arr[size];
65     } catch (const out_of_range& e) {
66         cerr << "Error: " << e.what() << endl;
67     }
```

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\array using operator.e
- Output Size: 1.83738040924072 MiB
- Compilation Time: 0.38s
```

Enter the size of the array: 3

Enter 3 elements:

1

2

3

Array elements are:

1 2 3

Error: Index out of range

Process exited after 3.2 seconds with return value

0

Press any key to continue . . . |



(globals)

Project Classes Debug Increment.cpp Add operators.cpp Overload.cpp Overload == cpp.cpp Matrix Mul.cpp array using operat

```
1  #include <iostream>
2  using namespace std;
3  class FunctionObject {
4  public:
5      void operator()(int a, int b) const {
6          cout << "FunctionObject called with arguments: " << a << " and
7          int result = a + b;
8          cout << "Result of addition: " << result << endl;
9      }
10 };
11
12 int main() {
13     FunctionObject funcObj;
14     funcObj(10, 20);
15
16     return 0;
17 }
18
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Calling functions.exe
- Output Size: 1.8328685760498 MiB
- Compilation Time: 0.36s
```

```
FunctionObject called with arguments: 10 and 20
Result of addition: 30
```

```
-----
Process exited after 0.112 seconds with return valu
e 0
Press any key to continue . . . |
```




```
1  #include <iostream>
2  using namespace std;
3
4  class MyNumber {
5  private:
6      int value;
7
8  public:
9      MyNumber(int val = 0) : value(val) {}
10     MyNumber operator-(const MyNumber& other) const {
11         return MyNumber(value - other.value);
12     }
13     int getValue() const {
14         return value;
15     }
16 };
17 int main() {
18     MyNumber num1(10);
19     MyNumber num2(5);
20     MyNumber result = num1 - num2;
21     cout << "Result of subtraction: " << result.getValue() << endl;
```

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Subtract.exe
- Output Size: 1.83326721191406 MiB
- Compilation Time: 0.38s
```

Result of subtraction: 5

Process exited after 0.1105 seconds with return value 0

Press any key to continue . . . |



```
1  #include <iostream>
2  using namespace std;
3  int add(int a, int b) {
4      return a + b;
5  }
6  double add(double a, double b) {
7      return a + b;
8  }
9  int main() {
10     int int1 = 10, int2 = 20;
11     double float1 = 1.5, float2 = 2.5;
12     int sumInt = add(int1, int2);
13     cout << "Sum of integers: " << sumInt << endl;
14     double sumFloat = add(float1, float2);
15     cout << "Sum of floating point numbers: " << sumFloat << endl;
16     return 0;
17 }
18
```

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\+ pointers.exe
- Output Size: 1.8326473236084 MiB
- Compilation Time: 0.52s
```

```
Sum of integers: 30
Sum of floating point numbers: 4
```

```
-----
Process exited after 0.1043 seconds with return value 0
Press any key to continue . . .
```




(globals)

Project Classes Debug Increment.cpp Add operators.cpp Overload.cpp Overload == cpp.cpp Matrix Mul.cpp array using operat

```
1  #include <iostream>
2  using namespace std;
3  class MyNumber {
4  private:
5      int value;
6  public:
7      MyNumber(int val = 0) : value(val) {}
8      MyNumber& operator+=(const MyNumber& other) {
9          value += other.value;
10         return *this;
11     }
12     int getValue() const {
13         return value;
14     }
15 };
16 int main() {
17     MyNumber num1(10);
18     MyNumber num2(5);
19     num1 += num2; cout << "Result of num1 += num2: " << num1.getValue();
20     return 0;
21 }
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\operator+=".exe
- Output Size: 1.8332633972168 MiB
- Compilation Time: 0.38s
```

Result of num1 += num2: 15

Process exited after 0.1041 seconds with return value 0

Press any key to continue . . . |



```
2 using namespace std;
3 class Counter {
4 private:
5     int count;
6 public:
7     Counter() : count(0) {}
8     Counter& operator++() {
9         ++count;
10        return *this;
11    }
12    Counter operator++(int) {
13        Counter temp = *this;
14        ++count;
15        return temp;
16    }
17    void display() const {
18        cout << "Count: " << count << endl;
19    }
20 };
21 int main() {
22     Counter c;
```

Abort Compilation

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\chgan\Documents\OneDrive\Increment.exe
- Output Size: 1.83392524719238 MiB
- Compilation Time: 1.34s
```

```
Initial state: Count: 0
After prefix increment: Count: 1
After postfix increment: Count: 2
```

```
-----
Process exited after 0.1253 seconds with return value 0
Press any key to continue . . .
```