

```

1: #include <iostream>
2: using namespace std;
3: class Complex
4: {
5: private:
6: float re; // real part
7: float in; // imaginary part
8: public:
9: // Default constructor
10: Complex()
11: {
12: re = 0;
13: in = 0;
14: }
15:
16: // Function to add multiple complex numbers
17: void sum()
18: {
19: int n;
20: cout << "How many complex numbers do you want to add? ";
21: cin >> n;
22:
23: if (n <= 0)
24: {
25: cout << "Invalid number of complex numbers." << endl;
26: return;
27: }
28:
29: for (int i = 0; i < n; ++i)
30: {
31: float tre, tin;
32: cout << "Complex number " << i + 1 << ":- " << endl;
33: cout << "Enter the real part: ";
34: cin >> tre;
35: cout << "Enter the imaginary part: ";
36: cin >> tin;
37:
38: // Displaying the entered complex number
39: if (tin >= 0)
40: cout << tre << " + " << tin << "i" << endl;
41: else
42: cout << tre << " - " << -tin << "i" << endl;
43:
44: re += tre;
45: in += tin;
46: }
47: }
48:
49: // Function to display the sum of complex numbers
50: void display()
51: {
52: if (in >= 0)
53: cout << re << " + " << in << "i" << endl;
54: else
55: cout << re << " - " << -in << "i" << endl;
56: }
57: // Destructor

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58: ~Complex()
59: {
60: cout << "Destructor is called for Complex object" << endl;
61: }
62: };
63:
64:
65: int main()
66: {
67: Complex co;
68: co.sum(); // calling the sum method to add complex numbers
69: cout << "The total sum of the complex numbers is: ";
70: co.display(); // displaying the result
71: return 0;
72: }
```