

ECE 1410 MyComplex Requirements

Complex numbers are very useful in the fields of Electrical and Computer Engineering. They are often used to represent impedances, voltages, and currents. A complex number consists of a real part and an imaginary part, and a typical representation is:

$$4.5 + 3.7i$$

where the term including “i” represents the imaginary part.

Design a C++ class called MyComplex that provides the following public member functions:

```
MyComplex();  
MyComplex(float rp, float ip);  
void printMyComplex();
```

Additionally, the MyComplex class should support the addition, subtraction, and multiplication operators using operator overloading. Use Google to review how addition, subtraction, and multiplication are performed on complex numbers.

Submit MyComplex.h and MyComplex.cpp files as a zip file. The grader will compile your class with a main.cpp provided by the instructor.

Example Output

If the instructor-provided main.cpp file looks like this:

```
#include <iostream>  
#include "MyComplex.h"  
  
using namespace std;  
  
int main()  
{  
    MyComplex a(3.0, 2.5);  
    MyComplex b(1.2, 4.4);  
    MyComplex c;  
  
    c = a * b;  
  
    c.printMyComplex();  
  
    return 0;  
}
```

The output should look something like this:

-7.4 + 16.2i