

Programming Assignment 5: Complex Number Operator Overloading

1) explain the differences in programming complex number assignments using C and C++

To solve the quadratic equation in C, we should divide the equation into three types, one is the discriminant equal to zero, another is greater than zero, and the other is lesser than zero. Also, the real part and the imaginary part are separated, using different formulas to calculate it. Moreover, when solving the roots, the type of all the values is float, and after the calculation is done the values of real and imaginary numbers are stored in the separate part of the complex structure respectively. However, in C++ language by using class, we can solve the roots with complex numbers. Therefore the code becomes simpler.

2) discuss the advantages and/or disadvantages of programming in C++

One of the most significant advantages of programming in C++ is that the code is simpler and more intuitive, it's easier to solve the quadratic equations in C++ since it's more likely when we solve by writing. Nevertheless, the disadvantage is that we have to define many functions, or the file won't operate successfully.