

Complex

You need to write a simple class to represent complex numbers, named `Complex`. Each complex number has a real and imaginary component. For this problem, you can assume that both of these components will be integers and can be supplied to a two argument constructor.

Write getter member functions for `real` and `imaginary`.

Write support for `<<` to an `std::ostream`. A complex number should print itself to a stream looking like `3+5i` or `-7-56i`.

Lastly, write support for the `*` operator. Remember that complex number follow the rules of the distributive property.

$$(x + yi)(u + vi) = (xu - yv) + (xv + yu)i.$$

So `4+5i * 7+9i = -17+71i` as `(4*7 - 5*9)` is `-17` and `(4*9 + 7*5)` is `71`.

Make sure you also support negative components and const Complex objects.

Your solution should be written in `Complex/Complex.cpp` and `Complex/Complex.hpp`. The `main.cpp` contains some example usage.