Fundamentals of Computer Programming 2
Practice Problems – February 7, 2003

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Practice problems for today :

Check out the examples. For the class "complex" defined in the examples write the following member functions :

1. `double abs()` which calculates the absolute value of the complex number ( $\text{abs}(x+iy) = \sqrt{x^2+y^2}$).
2. `double reciprocal()` which calculates the reciprocal $(1/(x+iy))$ for the complex number $x+iy$.

Write the following functions for doing complex arithmetic

1. `complex product(complex z1, complex z2)` for calculating the product of the 2 complex numbers z1 and z2.
2. `complex ratio(complex z1, complex z2)` for calculating $z1/z2$.
3. `complex pow(complex z1, complex z2)` for calculating $z1^{z2}$.