MATH 475 ASSIGNMENT 1
SPRING 2010
Prof. Alexander
Due Wednesday January 20.

Section 1.1 p. 9 #1, 3, 6, 11, 12a, 13, 15, 18
Section 1.1.1 p. 12 #2, 3, 4
Section 1.2 p. 20 #2, 4, 6

HINTS:

(1.1 #3) Some of these are most easily done by taking $w = x + iy$ and seeing what the given equality says about x and y.

(1.1 #11) Again, express z, w in terms of real and imaginary parts.

(1.1 #15) "Equilateral" means what three values are equal?

(1.1 #18) This is very short if you do the right algebraic manipulation on the desired identity.

(1.2 #2,4,6) As above, use $z = x + iy$ and restate the identity in terms of x, y. In some cases it is useful to square the equality, so that magnitudes become squares of magnitudes, which are easier to work with.