Complex Analysis

Math 312 — MWF 10:30-11:25am

Spring 1996 — 201 Fowler

Ron Buckmire ~ 402 Fowler ~ 259-2536 ~ `ron@oxy.edu`

Worksheet #1 (01/22/96)

SUMMARY What do we know about complex numbers so far? Here is a list of properties and operations we know about to date. Make sure you understand how each one works.

Consider 2 complex numbers $z = x + \mathbf{i}y$ and $p = a + \mathbf{i}b$

- EQUALITY
- CONJUGATE
- MODULUS (absolute value)
- ADDITION
- MULTIPLICATION
- DIVISION

1. With your partner compute the value of the expressions A and B so that they are complex numbers of the form $x + \mathbf{i}y$.

$$A = \frac{3+2i+(-2+i)}{3-4i}, \quad B = (\frac{6}{5} + 2i - (3 - \frac{3}{5}i))$$

Then answer the following questions:
(a) Is A = B?

(b) Which is bigger, A or B?

From this example we can name one significant difference between the set of real numbers and the set of complex numbers.