

# Complex Number Cornell Notes

OBJ:

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

Topic: \_\_\_\_\_

A complex number is a number that consists of two parts:

1)

2)

It is written in the form \_\_\_\_\_.

Add/Subtract "Like Terms"

add/sub the real parts and the imaginary parts

Example:  $(4 + 3i) + (7 - 2i) =$

Multiplying:

distribute, CLT and reduce any  $i^2$

Example:  $(3 + 2i)(4 - 6i)$

Definition: The complex conjugate is

Examples:

a)  $3 + 7i$

b)  $-5 + 10i$

c)  $14i$

d)  $7$

Complex conjugates are helpful because they eliminate the imaginary part.

Example:  $3 - 2i$

We use complex conjugates to eliminate  $i$ 's from the denominators of fractions

Example:  $(3+2i)/(2+5i)$

Example:  $(3i+4)/(i-7)$

Summary: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_