# I. Imaginary Number "$i$" (p.563):

1. $\sqrt{-1} = i$
2. $i^2 =$ ___

# II. Examples (p.570): Exercises #2,6,12

# III. Complex Numbers (p.564):

$\mathbb{C} = \{a + bi \mid$ "a" & "b" are real #s$\}$

# IV. Examples (p.570): Exercises #18,24,34,40,58,62

# V. Conjugate of "$a + bi$" is "$a - bi$"

$(a + bi)(a - bi) =$

$=$

$=$

$=$ _____ ☜ real #

# VI. Division w/complex numbers (p.566):

1. Similar to rationalizing the denominator...
   *i.e.*, multiply by the conjugate of the denominator in order to obtain an equivalent fraction whose denominator is a real # (no imaginary part)
2. Examples (p.570): Exercises #64,72,84

HW: p.570/Exercises#1,5,9,11,17,21,27,29,33,39, 45,49,55,59,63,67,81,85,95,99

Read pp.582-592 (section 8.1)