MATH 0482

Chapter 5.7 Complex Numbers and Their Operations

$x^2 = 1$ $\qquad$ $x^2 = -1$

IMAGINARY NUMBER i:

REWRITE WITH i.

$\sqrt{-7}$ $\qquad$ $\sqrt{-25}$ $\qquad$ $\sqrt{-72}$

COMPLEX NUMBER: $a+bi$

$3-4i$ $\qquad$ 5

Simplify.

$(5-2i)+(7+3i)$

$(10-7i)-(9+5i)$

$(5+i)+(2-3i)-(4-7i)$

$-6i(2-3i)$

$(3-4i)(4+5i)$

$(5+2i)(5-2i)$

$\frac{1}{2-3i}$

$\frac{1-5i}{4+i}$

$\frac{8-3i}{2i}$

$\sqrt{-6}\sqrt{-15}$

$\sqrt{-10}\left(\sqrt{-6}-\sqrt{10}\right)$

$(2i\sqrt{2})^2-(3-i\sqrt{5})^2$