 3.1 Complex Numbers

With your group make a list of what you recall about complex numbers.
If $a > 0$ $\sqrt{-a} =$

Standard form of a complex number.


Ex. 1
Evaluate
(a) $\sqrt{-5} \sqrt{-5}$ (b) $\sqrt{-6} \sqrt{-10}$ (c) $\frac{\sqrt{-20}}{\sqrt{-2}}$

Ex. 2
Evaluate the expression $(3-5i) + (-6-17i)$
$$3+(-6) + (-5i-17i)$$

$$\underline{-3 - 22i}$$

Ex. 3
Evaluate $(4+5i)(7-2i)$

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 3.1 Complex Numbers

With your neighbor FOIL $(a+bi)(a-bi)$


This is a shortcut you can use when multiplying complex conjugates.

Ex. 4
Find the complex conjugate of
(a) $7i$ (b) $3-2i$ (c) $-1/2$

Ex. 5
Evaluate $5/(3i)$

Ex. 6
Evaluate $(5+2i)/(5i)$

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Ex. 7

Evaluate $\frac{5+7i}{2-3i}$