ALGEBRA2 **Period_____** **MS.SHIN** **NAME: _____**

Homework #5: Imaginary Numbers

$* i = \sqrt{-1}$

Example problem:

Simplify: $\sqrt{-9}$

Write the number under the radicand as a product of -1 and a non – negative number: $\sqrt{-9} = \sqrt{-1} \bullet \sqrt{9}$

Find the roots (simplify): $3i$

Answer: $\sqrt{-9}$ = **3*i***

Simplify the expressions below

1) $\sqrt{-36}$	2) $\sqrt{-169}$	3) $\sqrt{-324}$
4) $5\sqrt{-121}$	5) $\sqrt{-15}$	6) $-7\sqrt{-25}$
7) $\sqrt{-8} \cdot \sqrt{24}$	8) $\sqrt{-6} \cdot \sqrt{-12} \cdot \sqrt{-5}$	

9) Solve: $x^2 + 4 = 0$

10) Find the error in the student's work and make the correction

$14 - \sqrt{-16}$

$14 + 16$

$14 + 4$

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