

Simplify each.

1. $\sqrt{-405}$

81 5

$9i \sqrt{5}$

-117

$\sqrt{9 \cdot 13}$

$3i\sqrt{13}$

2. $(5 + 8i)(6 - 2i)$

	$5 + 8i$	
6	30	$+48i$
$-2i$	$-10i$	$+16i^2$
		$+16$

$46 + 38i$

3. $(4 + \sqrt{-100}) - (6 - \sqrt{-121})$

$(4 + 10i) - (6 - 11i) = -2 + 21i$

4. Find ALL solutions (real and imaginary) using square roots.

$7x^2 + 60 = 4$

$-60 -60$

$7x^2 = -56$

$\sqrt{x^2} = \sqrt{-8}$

$x = \pm 2i\sqrt{2}$