Geometry 4b: Simplifying Radicals   Name _____
Homework #1   Per_____   Date _____

1. Show that $\sqrt{a+b} \neq \sqrt{a} + \sqrt{b}$ by computing $\sqrt{9+16}$ and $\sqrt{9} + \sqrt{16}$.

Re-write the following square roots as equivalent whole numbers.

2. $\sqrt{5+4}$ **3.** $\sqrt{3^2 + 4^2}$ **4.** $\sqrt{25 - 3^2}$ **5.** $\sqrt{13^2 - 25}$

6. Which of the following expressions are equivalent to $\sqrt{96}$?

Expression	Equivalent to $\sqrt{96}$? (Yes or No)
$4 + \sqrt{80}$	
$4\sqrt{6}$	
$\sqrt{100} - \sqrt{4}$	
$2\sqrt{24}$	
$\sqrt{100} - 4$	

Solve each equation. Express your answer as a radical with no perfect square factors AND as a decimal (rounded to the thousandths place).

7. $2x^2 = 24$ **8.** $x^2 - 80 = 45$ **9.** $-3x^2 + 121 = -167$