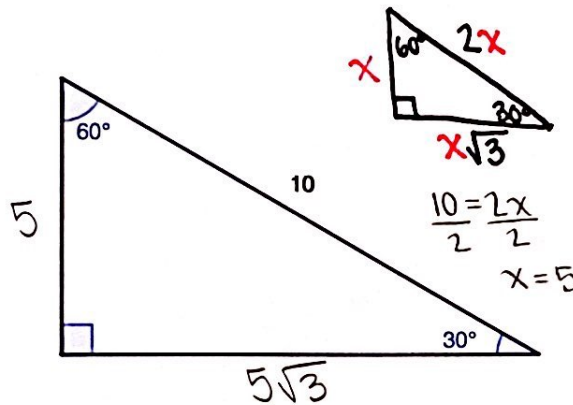
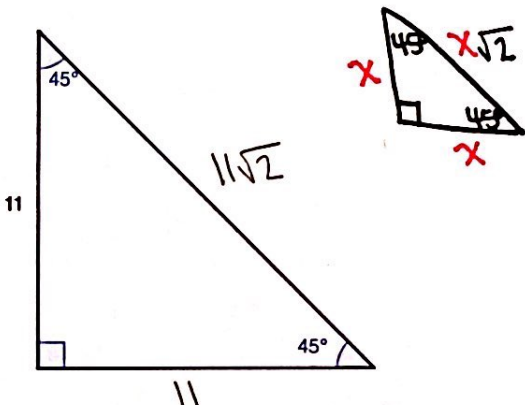
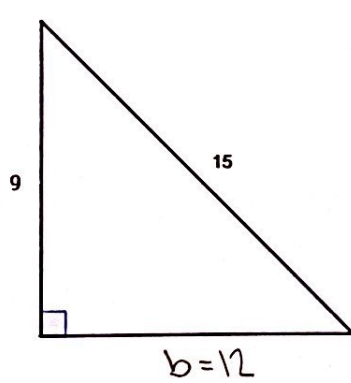
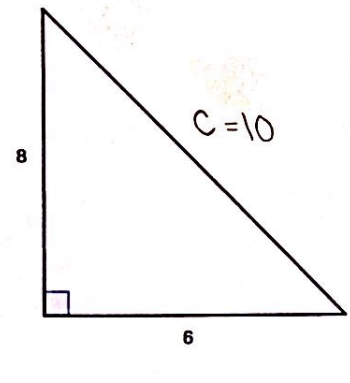
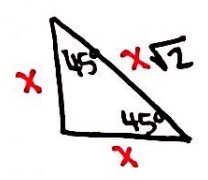
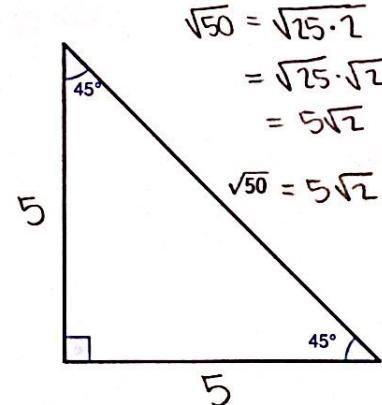
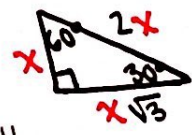
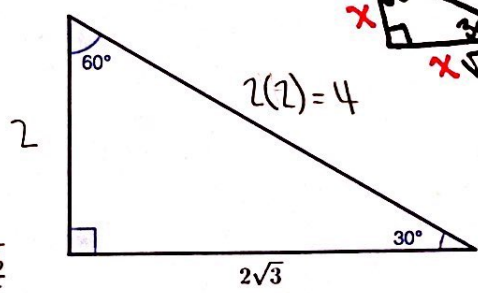


Name: key Period: _____

PYTHAGOREAN THEOREM & SPECIAL RIGHT TRIANGLES PRACTICE

Directions: Use the Pythagorean theorem or the properties of special right triangles to solve for all of the missing side lengths in the triangles below.

<p>1.</p>  <p style="text-align: right; margin-right: 20px;"> $\frac{10 = 2x}{2} \quad \frac{x\sqrt{3}}{2}$ $x = 5$ </p>	<p>2.</p> 
<p>3.</p> $ \begin{array}{r} 9^2 + b^2 = (15)^2 \\ 81 + b^2 = 225 \\ \underline{-81} \quad \underline{-81} \\ \hline \sqrt{b^2} = \sqrt{144} \\ b = 12 \end{array} $  <p style="text-align: center;">$b = 12$</p>	<p>4.</p> $ \begin{array}{l} (8)^2 + (6)^2 = c^2 \\ 64 + 36 = c^2 \\ \sqrt{100} = \sqrt{c^2} \\ 10 = c \end{array} $ 
<p>5. Hint: Simplify the radical first.</p>   <p style="text-align: right; margin-right: 20px;"> $\sqrt{50} = \sqrt{25 \cdot 2}$ $= \sqrt{25} \cdot \sqrt{2}$ $= 5\sqrt{2}$ $\sqrt{50} = 5\sqrt{2}$ </p>	<p>6.</p>   <p style="text-align: center;">$2(2) = 4$</p> $ \frac{2\sqrt{3}}{\sqrt{3}} = \frac{x\sqrt{3}}{\sqrt{3}} $ <p style="text-align: center;">$x = 2$</p>