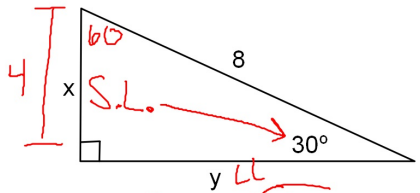
Algebra 2 Bellwork Tuesday, November 12, 2013

Use the relationships in special right triangles to find the missing sides. Give answers in simplified radical form(exact answers).

1. x = 4 y = $4\sqrt{3}$



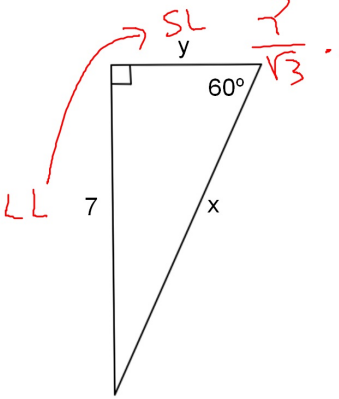
$SL\sqrt{3} = LL$

$SL = HYP \cdot \frac{1}{2}$

$64 = 16$
$-16 \quad -16$

$\sqrt{48} = 4\sqrt{3}$

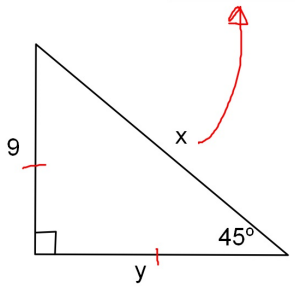
2. x = $\frac{14\sqrt{3}}{3}$ y = $\frac{7\sqrt{3}}{3}$



$\frac{7}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{7\sqrt{3}}{3}$ x2 =

$2 \cdot 7 \cdot \sqrt{3} = \frac{14\sqrt{3}}{3}$

3. x = $9\sqrt{2}$ y = 9



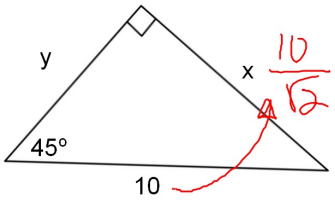
$L \cdot \sqrt{2} = HYP$

$9^2 + 9^2 = x^2$

$\sqrt{x^2} = \sqrt{162}$

$x = 9\sqrt{2}$

4. x = $5\sqrt{2}$ y = $5\sqrt{5}$



$\frac{10}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{10\sqrt{2}}{2} = 5\sqrt{2}$