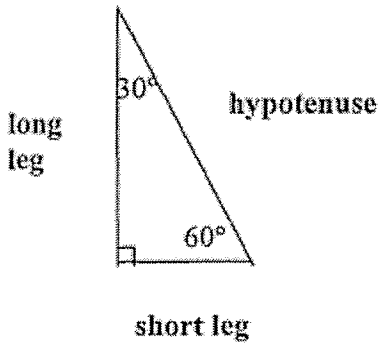


Relationships in 30°-60°-90° Triangles:



(short leg)(2)
Hypotenuse = twice the short leg

Long leg = short leg * $\sqrt{3}$

$$\text{hyp} = (\text{SL})(2)$$

$$\text{SL} = \frac{\text{hyp}}{2}$$

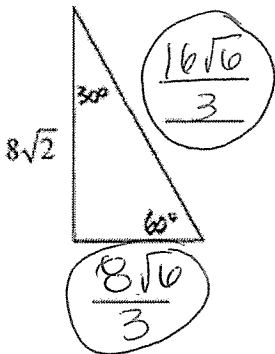
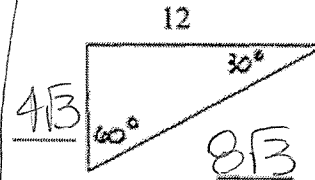
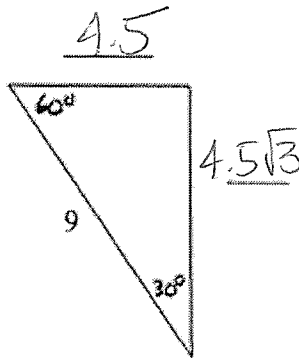
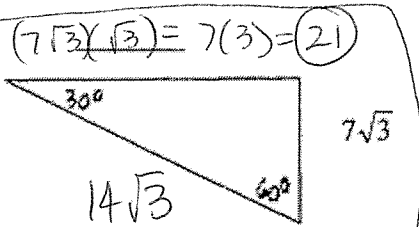
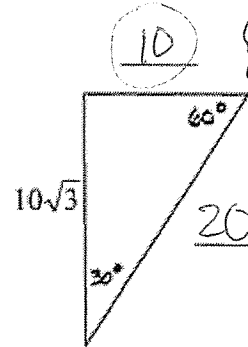
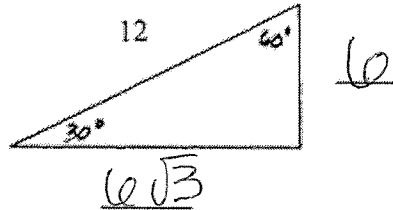
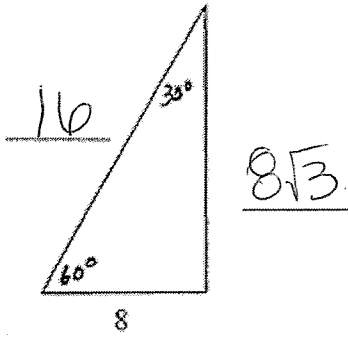
$$\text{LL} = (\text{SL})(\sqrt{3})$$

$$\text{SL} = \frac{\text{LL}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$$

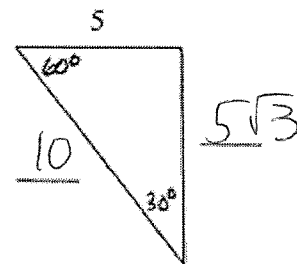
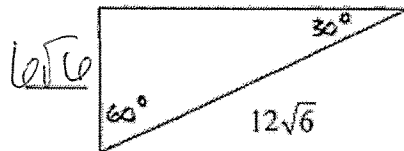
$$\text{SL} = \frac{\text{LL} \sqrt{3}}{\sqrt{9}}$$

$$\text{SL} = \frac{\text{LL} \sqrt{3}}{3}$$

Find the missing sides of the triangles. Each triangle measures 30-60-90°. Leave answers in simplified radical form.



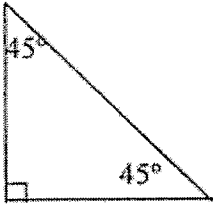
$$6\sqrt{18} = 6\sqrt{9 \cdot 2} = 18\sqrt{2}$$



$$x = \frac{(8\sqrt{2})(\sqrt{3})}{3}$$

$$x = \frac{8\sqrt{6}}{3}$$

Relationships in 45°-45°-90° Triangles:



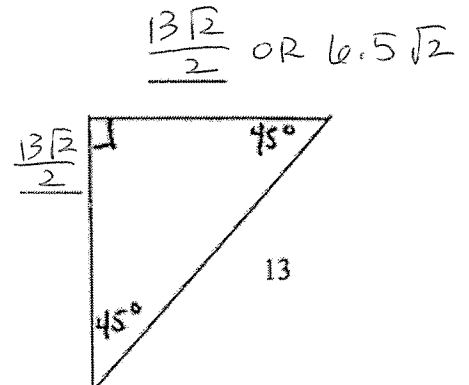
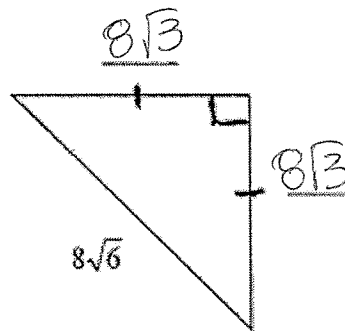
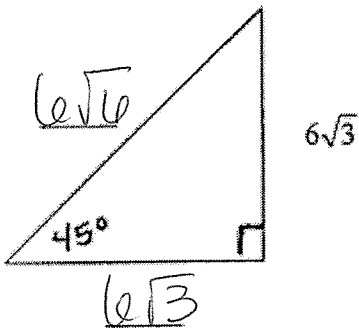
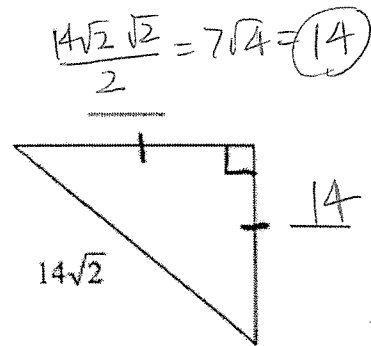
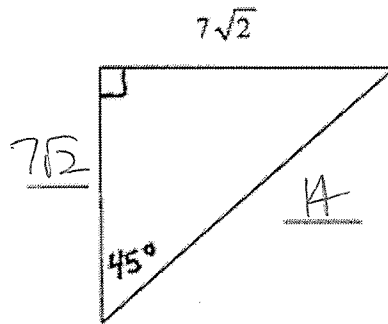
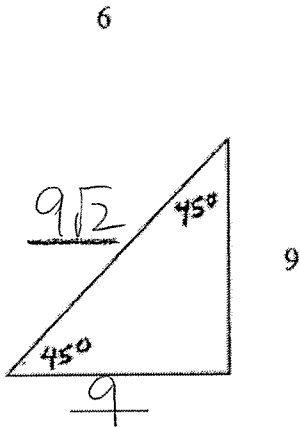
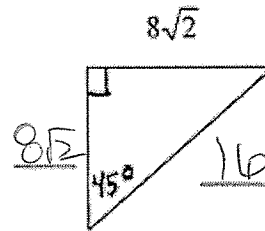
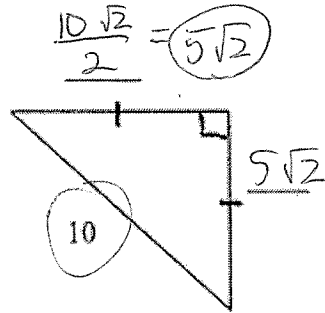
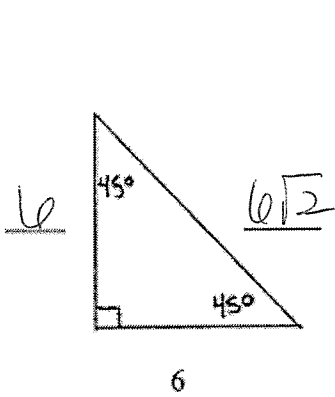
Hypotenuse = leg * $\sqrt{2}$

Hyp = (leg)($\sqrt{2}$)

leg = $\frac{\text{hyp} \cdot \sqrt{2}}{\sqrt{2} \cdot \sqrt{2}}$

leg = $\frac{\text{hyp} \sqrt{2}}{2}$

Find the missing sides of the triangles. Each triangle measures 45-45-90°. Leave answers in simplified radical form.



$\frac{4 \cdot 8\sqrt{6} \cdot \sqrt{2}}{2}$

$4\sqrt{12} = 4\sqrt{4 \cdot 3}$
 $= 4 \cdot 2\sqrt{3}$
 $= 8\sqrt{3}$