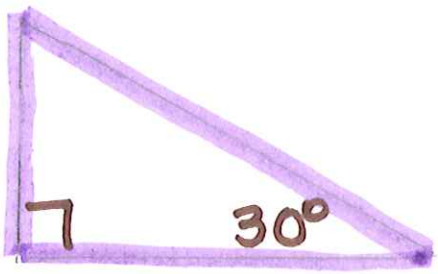
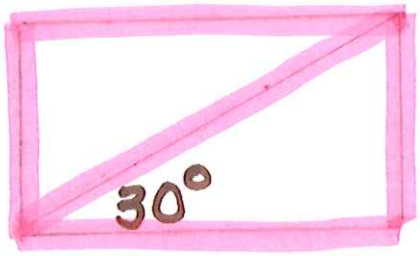
30-60-90 Triangles

Examples

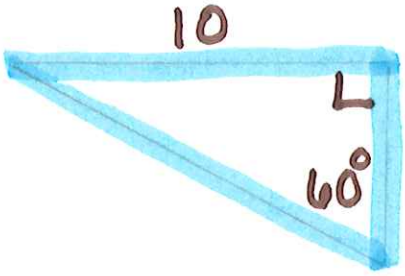




rectangle

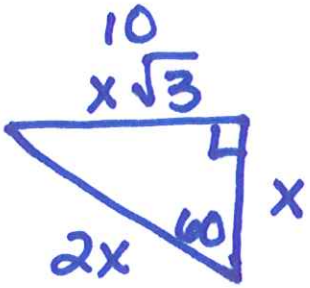
TAKS Formula Chart
Special Right Triangles

30-60-90 $x, x\sqrt{3}, 2x$



Find all unknown side lengths.

Step 1: Label the sides.



Step 2: Find the value of x.

$$x\sqrt{3} = 10$$

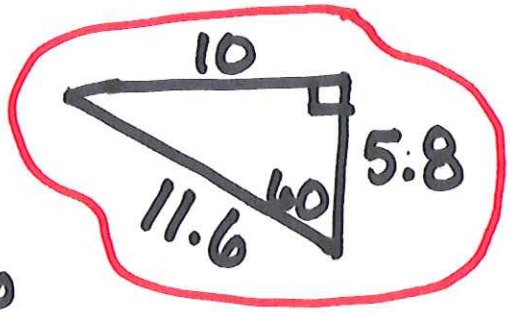
$$\frac{x\sqrt{3}}{\sqrt{3}} = \frac{10}{\sqrt{3}} \quad \nearrow \quad x = 5.8$$

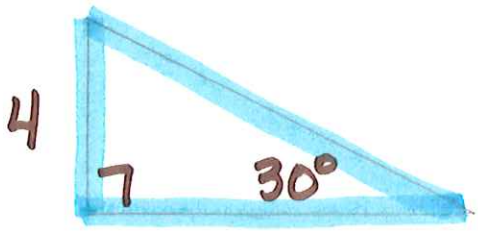
Step 3: Find the side lengths by plugging in the value of x.

$x \rightarrow 5.8$

$x\sqrt{3} \rightarrow 10$

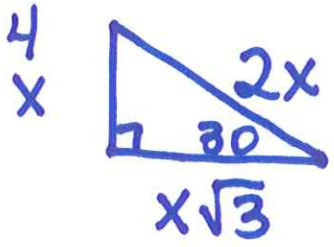
$2x \rightarrow 2(5.8) = 11.6$





Find all unknown side lengths.

Step 1: Label the sides.



Step 2: Find the value of x.

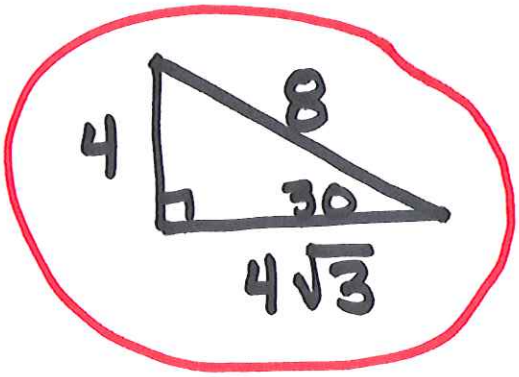
$x \rightarrow 4$

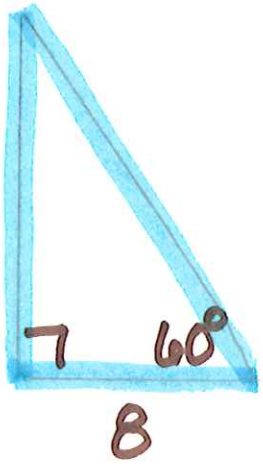
Step 3: Find the side lengths by plugging in the value of x.

$x \rightarrow 4$

$x\sqrt{3} \rightarrow 4\sqrt{3}$

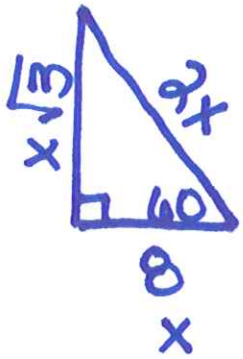
$2x \rightarrow 2(4) = 8$





Find all unknown side lengths.

Step 1: Label the sides.



Step 2: Find the value of x.

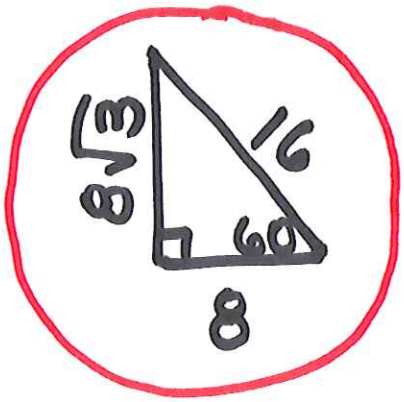
$x \rightarrow 8$

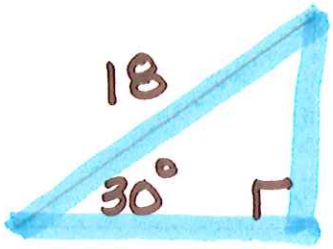
Step 3: Find the side lengths by plugging in the value of x.

$x \rightarrow 8$

$x\sqrt{3} \rightarrow 8\sqrt{3}$

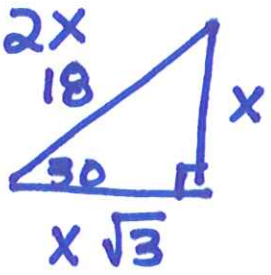
$2x \rightarrow 2(8) = 16$





Find all unknown side lengths.

Step 1: Label the sides.



Step 2: Find the value of x.

$2x = 18$

$\frac{2x}{2} = \frac{18}{2}$ → $x = 9$

Step 3: Find the side lengths by plugging in the value of x.

$x \rightarrow 9$

$x\sqrt{3} \rightarrow 9\sqrt{3}$

$2x \rightarrow 18$