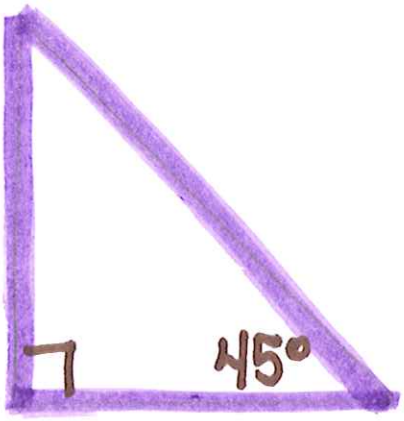
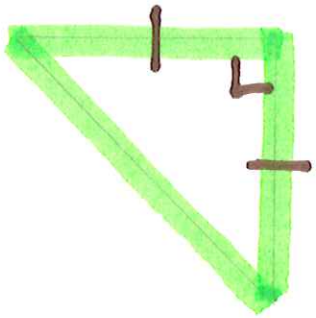
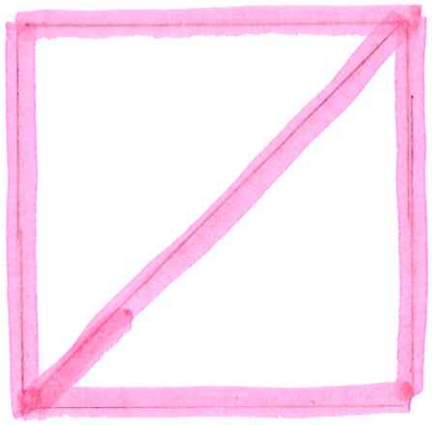
45-45-90 Triangles

Examples





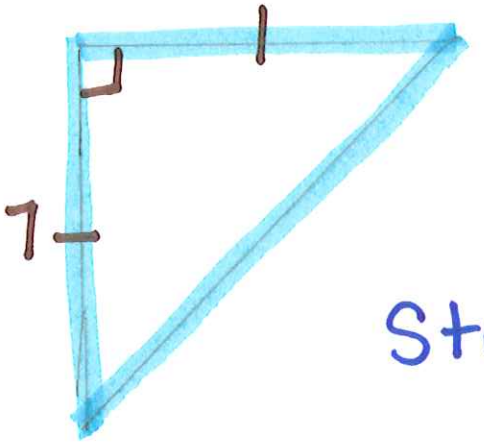


Square

TAKS Formula Chart

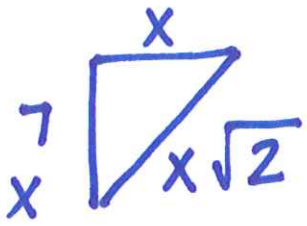
Special Right Triangles

45-45-90 $x, x, x\sqrt{2}$



Find all unknown side lengths.

Step 1: Label the sides.



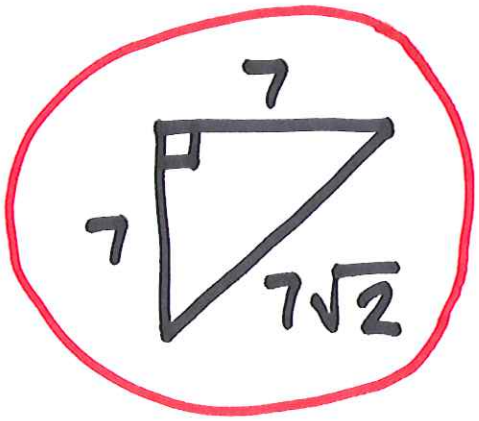
Step 2: Find the value of x.

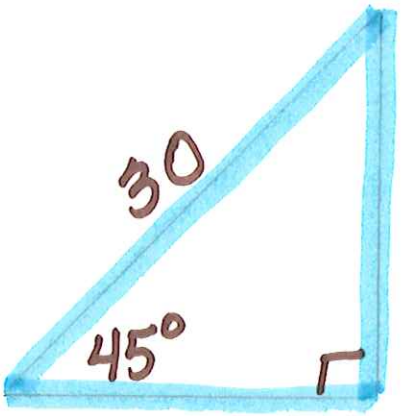
$x = 7$

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

$x \rightarrow 7$

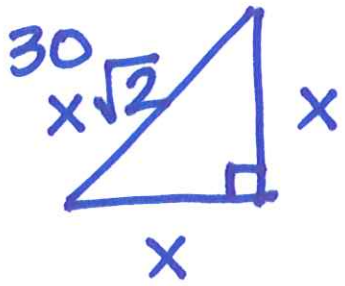
$x\sqrt{2} \rightarrow 7\sqrt{2}$





Find all unknown side lengths.

Step 1: Label the sides.



Step 2: Find the value of x.

$$x\sqrt{2} = 30$$

$$\frac{x\sqrt{2}}{\sqrt{2}} = \frac{30}{\sqrt{2}} \quad x = 21.2$$

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

$$x \to 21.2$$

$$x\sqrt{2} \to 30$$