



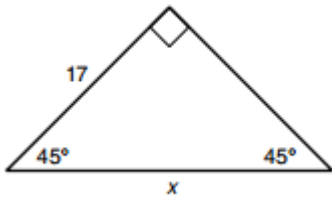
- I can apply special right triangle ratios to find unknown side lengths.
- I can use special right triangles in real world situations.

Theorem	Diagram
<p>45° – 45°– 90° Triangle Theorem</p> <p>In a 45° – 45°– 90°, both legs are congruent and the length of the hypotenuse is $\sqrt{2}$ times the length of a leg</p>	

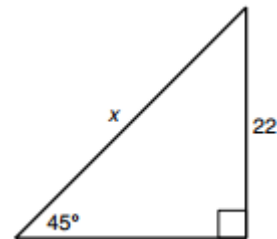
Example 1: Find lengths in a 45° – 45°– 90° triangle

Find the value of x . Leave answer in simplest radical form.

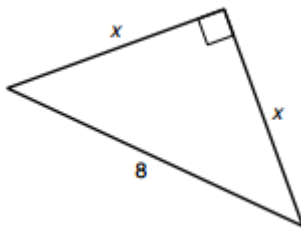
a.



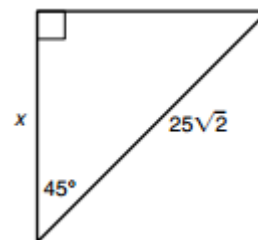
b.



c.



d.



Example 2: Apply 45° – 45°– 90° Triangle Theorem

Find the perimeter and area of the square whose diagonal is $7\sqrt{2}$ inches long.

Example 3: Apply 45° – 45°– 90° and 30° – 60°– 90° Triangle Theorem

Solve for x and y in the diagram below.

