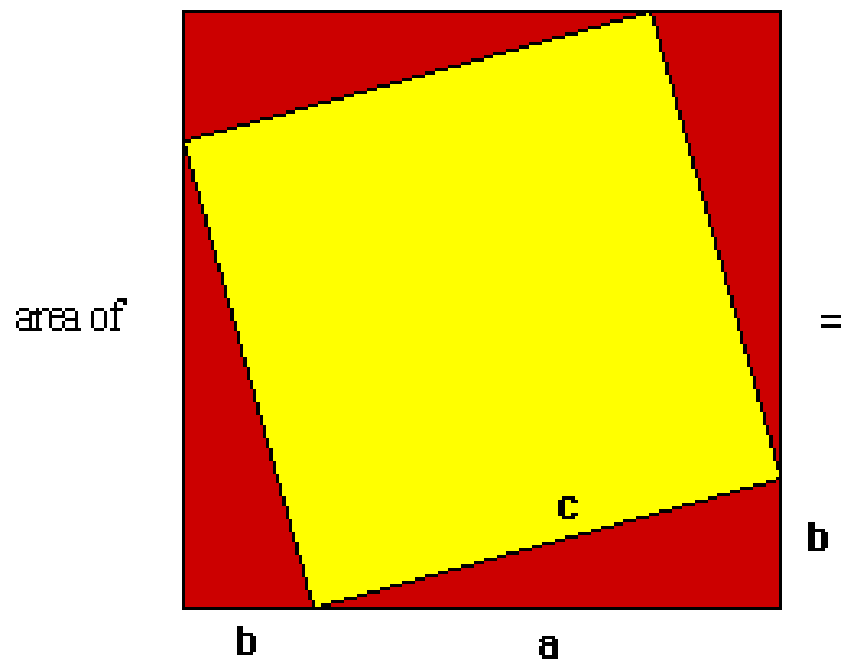


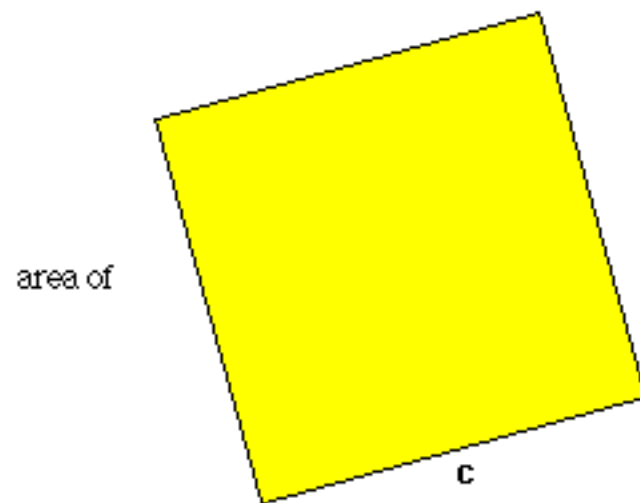
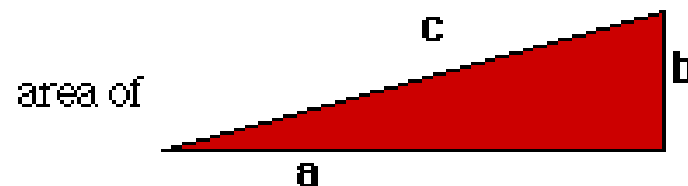
# Warm-Up

Find the area of the figure.

Right side of class.



Left side of class.



# Essential Skill 2: Congruent Triangles

LT 2.4 Properties of Triangles  
(Special Right Triangles)

A decorative graphic consisting of several horizontal lines of varying lengths and colors (teal, light blue, white) extending from the right side of the text area towards the right edge of the slide.

# Learning Objective Pg. 15

**I will be able to . . .**

- \* Use properties of  $45^\circ$ - $45^\circ$ - $90^\circ$  triangles.**
- \* Use properties of  $30^\circ$ - $60^\circ$ - $90^\circ$  triangles.**

# Glossary Pg. 27

## LT 2.4 Glossary Review: Special Right Triangles

This is an alphabetical list of the key vocabulary terms you should remember.

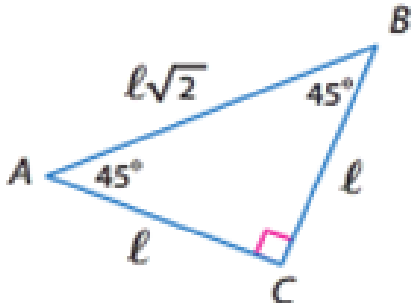
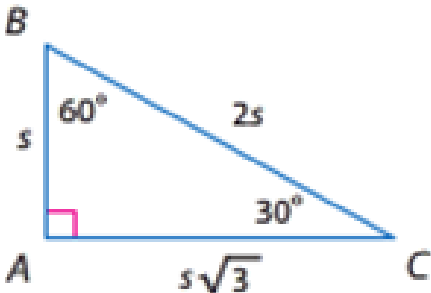
As you study the learning target, remember to review the vocabulary before the exams.

Vocabulary Term	Definition/Description/Example	Drawing
Pythagorean Theorem	If $a$ and $b$ are the measures of the legs of a right triangle and $c$ is the measure of the hypotenuse, then $a^2 + b^2 = c^2$	

# LT 2.4 New Glossary: Special Right Triangles

This is an alphabetical list of the key vocabulary terms you will learn.

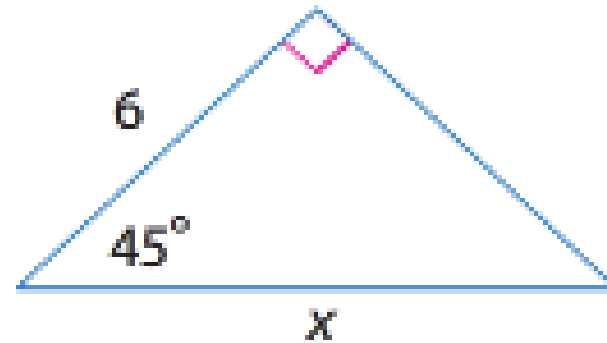
As you study the learning target, remember to review the vocabulary before the exams.

Vocabulary Term	Definition/Description/Example	Drawing
$45^\circ$ - $45^\circ$ - $90^\circ$ Triangle	<p>In a <math>45^\circ</math>-<math>45^\circ</math>-<math>90^\circ</math> triangle, the legs <math>l</math> are congruent and the hypotenuse <math>h</math> is <math>\sqrt{2}</math> times the length of the leg.</p> $l = l$ $h = l\sqrt{2}$	
$30^\circ$ - $60^\circ$ - $90^\circ$ Triangle	<p>In a <math>30^\circ</math>-<math>60^\circ</math>-<math>90^\circ</math> triangle, the length of the hypotenuse <math>h</math> is 2 times the length of the shorter leg <math>s</math>, and the length of the longer leg <math>l</math> is <math>\sqrt{3}</math> times the length of the shorter leg.</p> $h = 2s$ $l = s\sqrt{3}$	

# Example 1: $45^\circ-45^\circ-90^\circ$

Find the hypotenuse length (find the value of  $x$ )

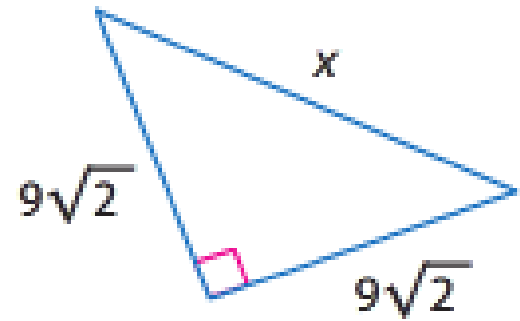
Given:



# Example 1a

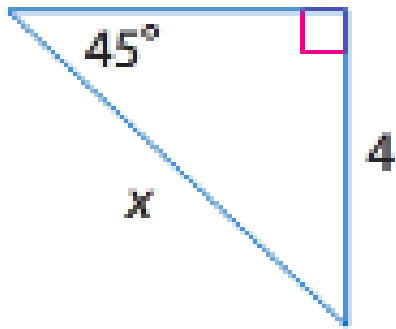
Find the hypotenuse length (find the value of  $x$ )

Given:



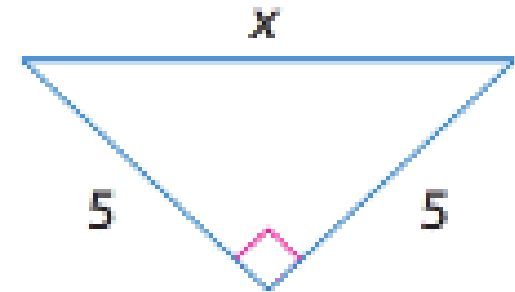
## Example 1b

Find the hypotenuse length (find the value of  $x$ )



Given:

## Example 1c



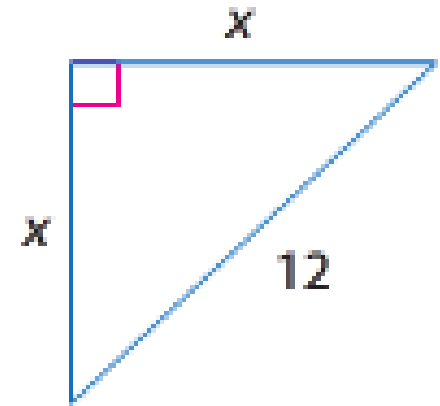
Given:



# Example 1d

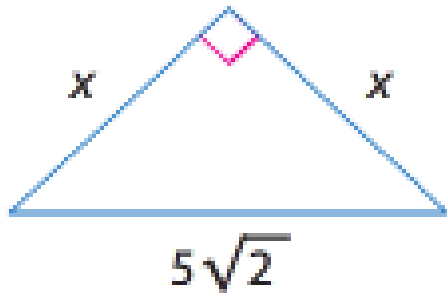
Find the hypotenuse length (find the value of  $x$ )

Given:



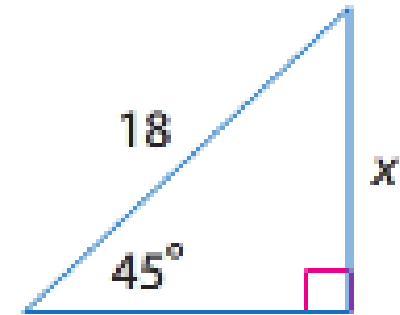
## Example 1e

Find the hypotenuse length (find the value of  $x$ )



Given:

## Example 1f



Given:

# Homework

**Class:**

**Complete Skills Practice #1-6 all**

**Simples Form Handout (middle column)**

**Multiplying Square Roots #2-12 even**

**Honors:**

**Complete Honors Skills Practice #1-6 all**

**Simples Form Handout (middle column)**

**Multiplying Square Roots #2-12 even**