Math Antics
Worksheets
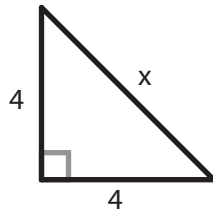
Finding an Unknown Side - Set 1

Instructions: For each right triangle, use the Pythagorean Theorem to find the length of the unknown side 'x'. (You can use a calcuator for the arithmetic if you want to.)

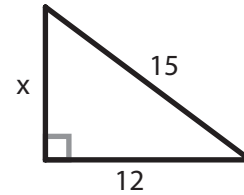**1**

$$4^2 + 4^2 = x^2$$

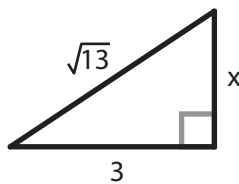$$16 + 16 = x^2$$

$$32 = x^2$$

$$\sqrt{x^2} = \sqrt{32}$$
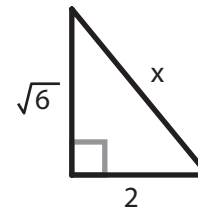
$$\boxed{x = \sqrt{32}}$$

or $4\sqrt{2}$

or $5.656...$

2

3

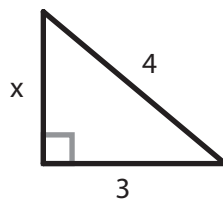**4**

5

6

▶ The Pythagorean Theorem • mathantics.com

Name: _____

Date: _____
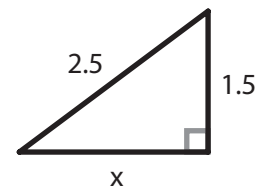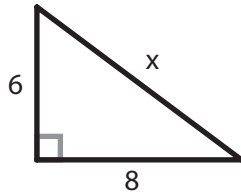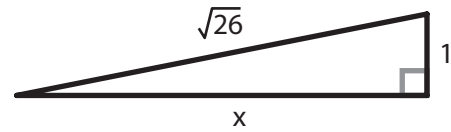
Finding an Unknown Side - Set 2

Instructions: For each right triangle, use the Pythagorean Theorem to find the length of the unknown side 'x'. (You can use a calcuator for the arithmetic if you want to.)
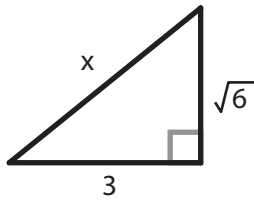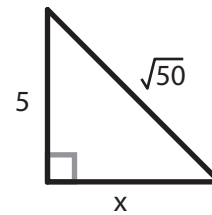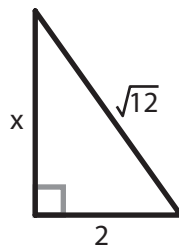
1

x
6
8

2

$\sqrt{26}$
1
x

3

x
$\sqrt{6}$
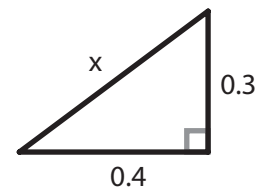3

4

5
$\sqrt{50}$
x

5

$\sqrt{12}$
x
2

6

x
0.3
0.4

Is it a *right* triangle?

Instructions: Use the Pythagorean Theorem to test the triangles shown or described in each problem below.

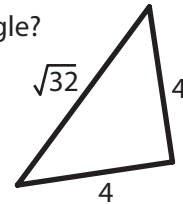**1** If a triangle has sides that are 12, 10 and 6 meters long, is it a right triangle?

NOTE: when plugging the three sides into the test equation, always make the longest side 'c'.

Test: $6^2 + 10^2 \overset{?}{=} 12^2$

$36 + 100 \overset{?}{=} 144$

$136 \neq 144$ (Nope!)

2 Is this a right triangle?

$\sqrt{32}$ 4   4

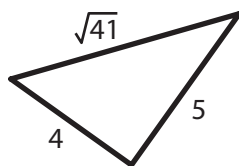**3** Is a triangle with side lengths of 4, 5, and 6 inches a right triangle?

4 A triangle has side lengths that are 7 cm, 7 cm and 11cm. Is it a right triangle ?

5 Is this a right triangle?

$\sqrt{41}$ 5   4

6 Is this a right triangle?

$\sqrt{5}$ 3 $\sqrt{13}$