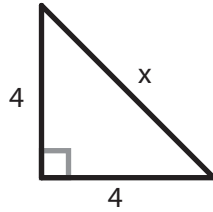


Finding an Unknown Side - Set 1

PT 1

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

1



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

$$16 + 16 = x^2$$

$$32 = x^2$$

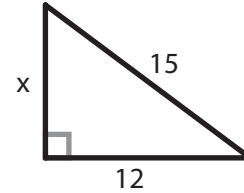
$$\sqrt{x^2} = \sqrt{32}$$

$$x = \sqrt{32}$$

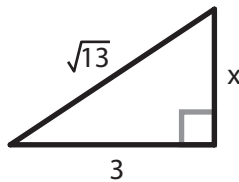
$$\text{or } 4\sqrt{2}$$

$$\text{or } 5.656\dots$$

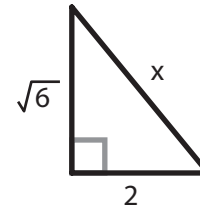
2



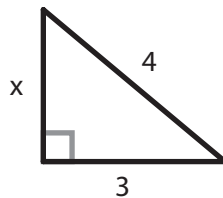
3



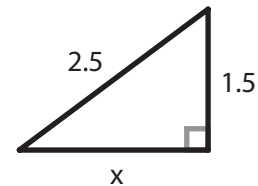
4



5



6

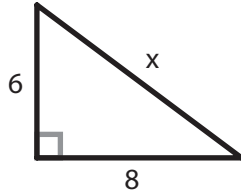


Finding an Unknown Side - Set 2

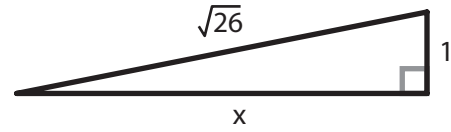
PT 2

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

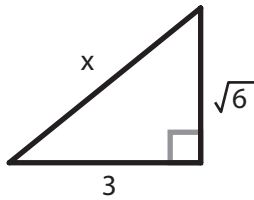
1



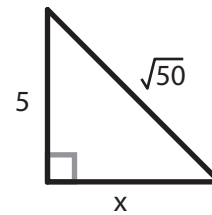
2



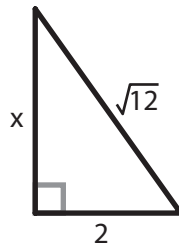
3



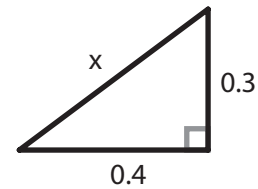
4



5



6



Is it a *right* triangle?

PT 3

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?

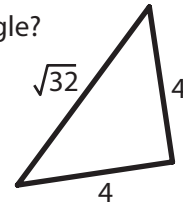
NOTE: when plugging the three sides into the test equation, always make the longest side 'c'.

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

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

$$136 \neq 144 \quad \text{Nope!}$$

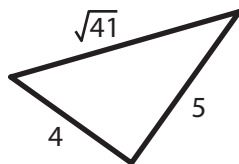
- 2 Is this a right triangle?



- 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?



- 6 Is this a right triangle?

