

Lesson 1 Assessment

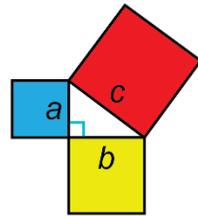
Exploring Relationships in Right Triangles

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Identifies hypotenuse of a right triangle

The hypotenuse is the longest side of a right triangle and is opposite the 90° angle.

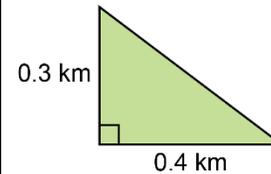
Describes the Pythagorean relationship



$a^2 + b^2 = c^2$
In a right triangle, the sum of the areas of the two smaller squares equals the area of the larger square.

Applies the Pythagorean relationship to determine the length of the hypotenuse of a right triangle

Determine the length of the hypotenuse.



$a^2 + b^2 = c^2$
 $0.3^2 + 0.4^2 = c^2$
 $0.09 + 0.16 = c^2$
 $c^2 = 0.25$
 $c = 0.5$
The hypotenuse is 0.5 km.

Identifies a problem involving the application of the Pythagorean relationship and uses the relationship to find an unknown hypotenuse

A top of a slide is 6 m above the ground and the base of the slide is 4.5 m along the ground. How long is the slide?

The length of the slide represents the hypotenuse of a right triangle. I can use the Pythagorean relationship.

$a^2 + b^2 = c^2$
 $6^2 + 4.5^2 = c^2$
 $36 + 20.25 = c^2$
 $c^2 = 56.25$
 $c = \sqrt{56.25}$
 $c = 7.5$
The slide is 7.5 m long.

Observations/Documentation