Math Virtual Learning

Pre-Algebra

Pythagorean Theorem

May 21, 2020

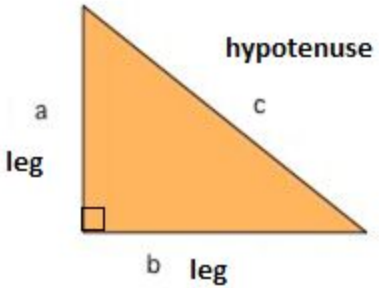
Pre-Algebra/Pythagorean Theorem
Lesson: May 21, 2020

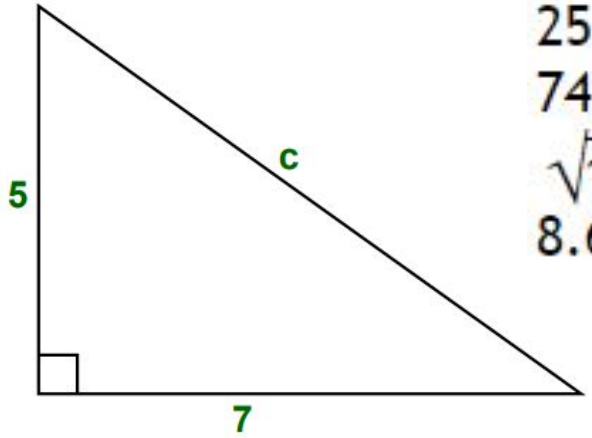
Objective/Learning Target:
Use Pythagorean Theorem to find missing side lengths.

Let's Get Started:
Watch Video: Pythagorean Theorem

Practice:
Directions or Question

Click the link to see more information and examples of Pythagorean Theorem.





$a^2 + b^2 = c^2$

$5^2 + 7^2 = c^2$

$25 + 49 = c^2$

$74 = c^2$

$\sqrt{74} = \sqrt{c^2}$

$8.60 = c$

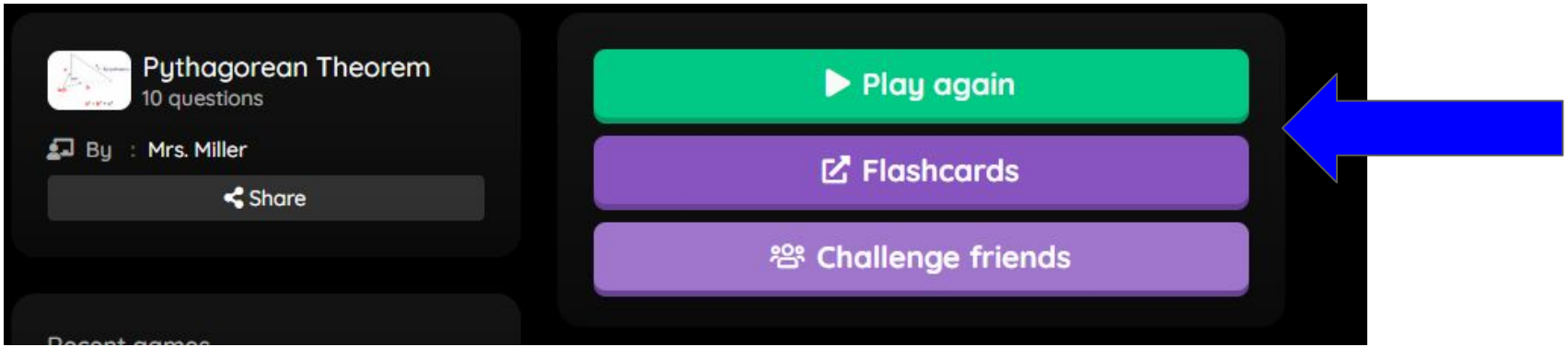
Correct Answer

Practice:

Go to this website:

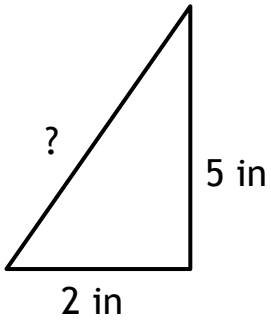
Pythagorean Theorem

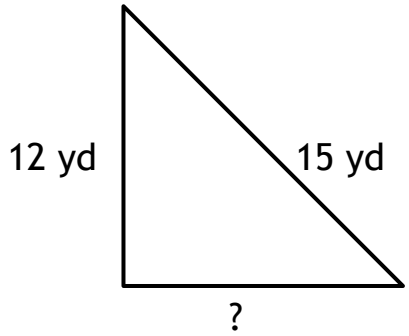
1. Choose “Play again” or “Flashcard”.
2. Read the questions carefully.
3. Either choose the correct answer or solve and select the correct answer.

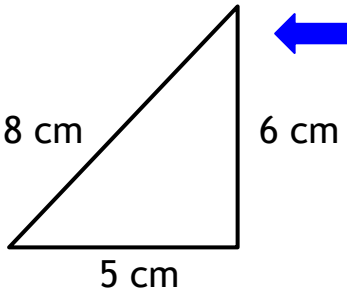


Practice:

Answer the questions on a piece of paper.
Solve for the missing side.

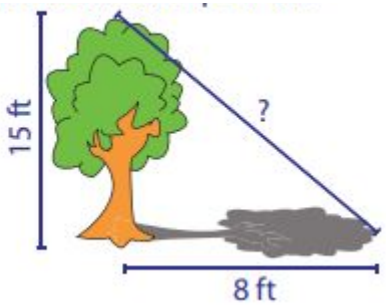






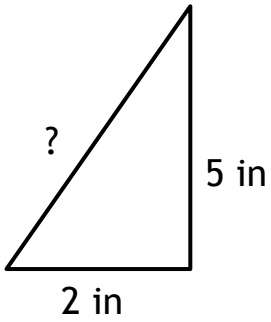
Based on the measurements, is this a right triangle?

A 15-foot tree casts a shadow that is 8 feet long. What is the distance from the tip of the tree to the tip of its shadow?



Answer Key:

Once you have completed the problems, check your answers here.



$a^2 + b^2 = c^2$

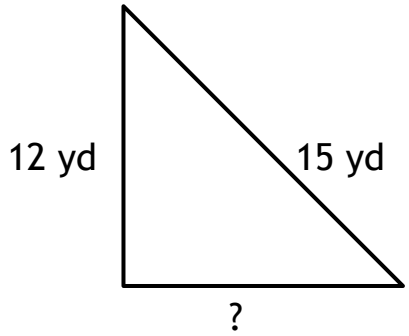
$5^2 + 2^2 = c^2$

$25 + 4 = c^2$

$29 = c^2$

$\sqrt{29} = \sqrt{c^2}$

$5.39 = c$



$a^2 + b^2 = c^2$

$a^2 + 12^2 = 15^2$

$a^2 + 144 = 225$

$a^2 + 144 - 144 = 225 - 144$

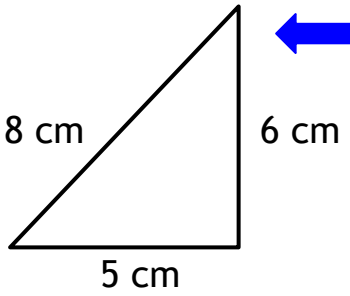
$a^2 = 81$

$\sqrt{a^2} = \sqrt{81}$

$a = 9$

Answer Key:

Once you have completed the problems, check your answers here.



Based on the measurements, is this a right triangle?

$a^2 + b^2 = c^2$

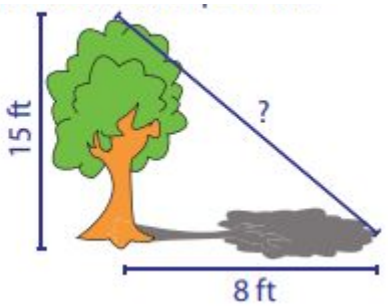
$5^2 + 6^2 = 8^2$

$25 + 36 = 64$

$61 \neq 64$

No, it is not a right triangle.

A 15-foot tree casts a shadow that is 8 feet long. What is the distance from the tip of the tree to the tip of its shadow?



$a^2 + b^2 = c^2$

$15^2 + 8^2 = c^2$

$225 + 64 = c^2$

$289 = c^2$

$\sqrt{289} = \sqrt{c^2}$

$17 = c$

Additional Practice:

Click on the links below to get additional practice and to check your understanding!

IXL - Practice Hypotenuse

IXL - Practice Missing Leg

Math Games - Practice

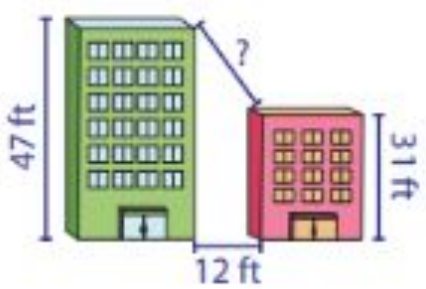
ThatQuiz - Practice

Open Middle - Challenge

Practice: Challenge

Answer the questions on a piece of paper.
Solve for the missing length.

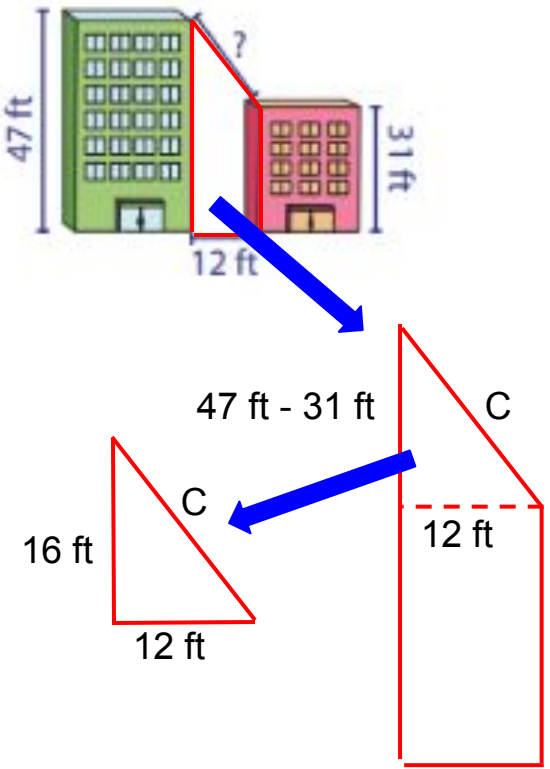
There are two buildings beside each other that are 12 feet apart. The buildings are 47 feet and 31 feet high. What is the distance between the rooftops of the two buildings?



Answer Key: Challenge

Once you have completed the problems, check your answers here.

There are two buildings beside each other that are 12 feet apart. The buildings are 47 feet and 31 feet high. What is the distance between the rooftops of the two buildings?



$$a^2 + b^2 = c^2$$
$$16^2 + 12^2 = c^2$$
$$256 + 144 = c^2$$
$$400 = c^2$$
$$\sqrt{400} = \sqrt{c^2}$$
$$20 = c$$