



TEACHER PAGE
Lesson: Pythagorean Theorem
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New Arizona Math Strand 3 Patterns, Algebra, and Functions Grade 8, 9-12

Articulated 3M83-12 Solve applied problems using the Pythagorean theorem;

4MH1-10 Solve problems using special case right triangles.

Old Arizona Math Standard 4 Geometry Proficiency 2 **Grades 9-12**

4MP2-PO3 Solve applied problems using the Pythagorean theorem (e.g., determine whether a wall is square).

Prerequisite Knowledge:

Students should be familiar with finding “squares” and square roots

Materials:

Tape measure or ruler

Learning Objectives: The student will be able to:

From two given sides of a triangle, find the missing side by applying the Pythagorean theorem.

Overview:

Pythagorean Theorem is $c^2 = a^2 + b^2$

Using the Pythagorean theorem, students will find the missing side of 3 right triangles from the given 2 measurements. This lesson is also available with English and Spanish narrations and has English and Spanish scripts.

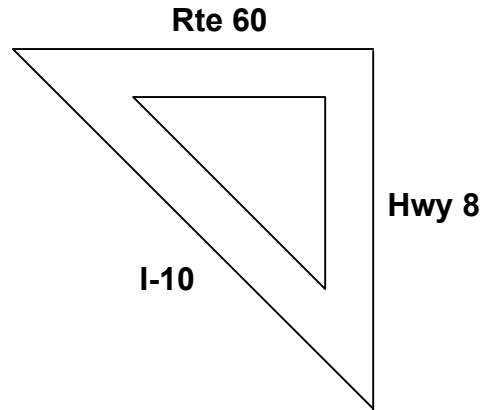
Engage students:

Students will perform calculations to compare actual measurements.

Follow-up, extensions:

1. Compare road distances that form a right triangle with Highways 60, I-10, and Highway 87.





Follow-up and Extensions continued:

2. Explore Pythagorean Triples. Decide where you would research this and do it.

Assessment:

Given right triangles with the measurement of two sides, find the missing side using the Pythagorean theorem.

Teacher Note:

This lesson can be used to support 4MH1-10 Solve problems using special case right triangles.

