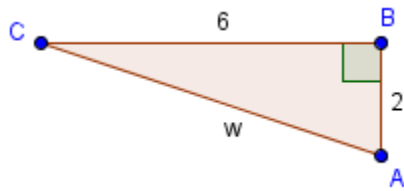


Name: _____ Date: _____ Period: _____

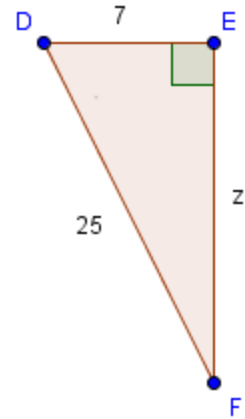
Geometry – Pythagorean Theorem Warm-Up

Directions: Using what you know about Pythagorean Theorem, find the missing variables.

1. $w =$ _____



2. $z =$ _____



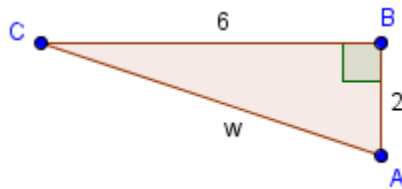
3. Now, consider your answer for z in #2. Write a mathematical argument to justify your answer.

Name: _____ Key _____ Date: _____ Period: _____

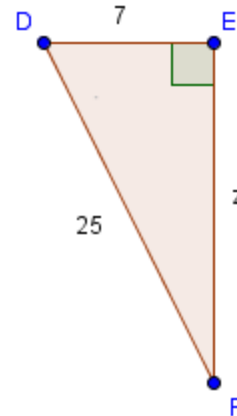
Geometry – Pythagorean Theorem Warm-Up

Directions: Using what you know about Pythagorean Theorem, find the missing variables.

1. $w =$ _____



2. $z =$ _____



1. $6^2 + 2^2 = w^2$ $36 + 4 = w^2$ $40 = w^2$ $\sqrt{40} = w$ $\sqrt{40} = 2\sqrt{10}$

2. $7^2 + z^2 = 25^2$ $49 + z^2 = 625$ $z^2 = 625 - 49$ $z^2 = 576$ $\sqrt{z^2} = \sqrt{576}$ $z = 24$

3. Now, consider your answer for z in #2. Write a mathematical argument to justify your answer.

Because the triangle in #2 is a right triangle, I can use the Pythagorean Theorem to solve for z. I knew I was solving for a leg, so I can put z in for “b” in the Pythagorean Theorem. I set up the equation as $7^2 + z^2 = 25^2$ and solved to get $z = 24$.

The answer should include:

- Using the Pythagorean Theorem because it’s a right triangle
- Identifying the missing side as either the leg or hypotenuse, and connecting it to their equation (“leg means a or b”, “c means hypotenuse”, or z is a leg so I used the equation $7^2 + z^2 = 25^2$)