

Name: _____ Period: _____ Date: _____

Pythagorean Theorem Exit Quiz

Find the missing legs of the following right triangles given 2 of its legs.

1. $a: 2, b: 7$

2. $c: 7, b: 5$

3. $a: 2, c: 10$

4. $a: 5, b: 7$

5. $a: 3, c: 10$

Pythagorean Theorem Exit Quiz

Answers:

Find the missing legs of the following right triangles given 2 of its legs.

1. a: 2, b: 7

$$c = \sqrt{a^2 + b^2}$$

$$c = \sqrt{2^2 + 7^2}$$

$$c = \sqrt{4 + 49}$$

$$c = \sqrt{53}$$

2. c: 7, b: 5

$$a = \sqrt{c^2 - b^2}$$

$$a = \sqrt{7^2 - 5^2}$$

$$a = \sqrt{49 - 25}$$

$$a = \sqrt{24} \text{ or } 2\sqrt{6}$$

3. a:2, c:10

$$b = \sqrt{c^2 - a^2}$$

$$b = \sqrt{10^2 - 2^2}$$

$$b = \sqrt{100 - 4}$$

$$b = \sqrt{96} \text{ or } 4\sqrt{6}$$

4. a:5 b:7

$$c = \sqrt{a^2 + b^2}$$

$$c = \sqrt{5^2 + 7^2}$$

$$c = \sqrt{25 + 49}$$

$$c = \sqrt{74}$$

5. a:3, c:10

$$b = \sqrt{c^2 - a^2}$$

$$b = \sqrt{10^2 - 3^2}$$

$$b = \sqrt{100 - 9}$$

$$b = \sqrt{91}$$