Name:_____ Hour: _____ Date: _____

NOTES: Section 12.6 – The Pythagorean Theorem and Its Converse

Goals: #1 - I can use the Pythagorean Theorem

Homework: Section 12.6 Worksheet

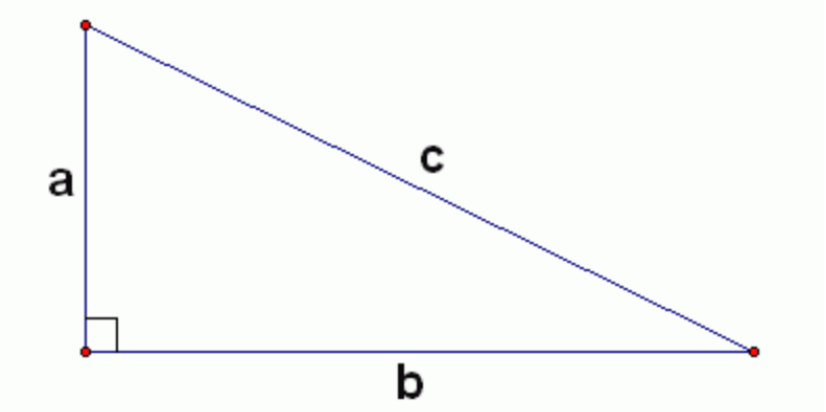
Warm Up:

1. Solve the equation. Check for extraneous solutions.
   a. $\sqrt{2x-6}-5=5$ b. $x=\sqrt{15x-14}$

Notes:

If a triangle is a _____ triangle (has a _____ angle), then we can use the _____ to find any side of the triangle.

- _____:



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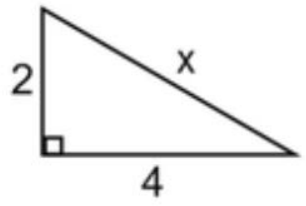
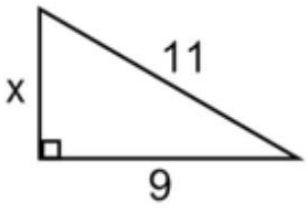
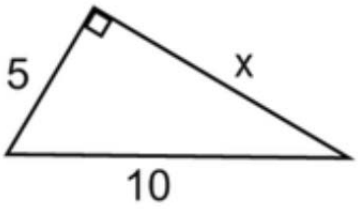
Example #1: Find the unknown lengths of the right triangle.

1. 

2. 

You practice: Find the unknown lengths of the right triangle.

1. 

Example #2: Let a and b represent the lengths of the legs of a right triangle and let c represent the length of the hypotenuse. Find the unkown length.

1. $a = 5, b = 6$
2. $b = 8, c = 10$

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Example #3: Determine whether the given lengths are sides of a right triangle.

1. $15, 20, 25$
2. $5, 11, 12$

You practice: Determine whether the given lengths are sides of a right triangle.

1. $7, 24, 26$
2. $5, 12, 13$