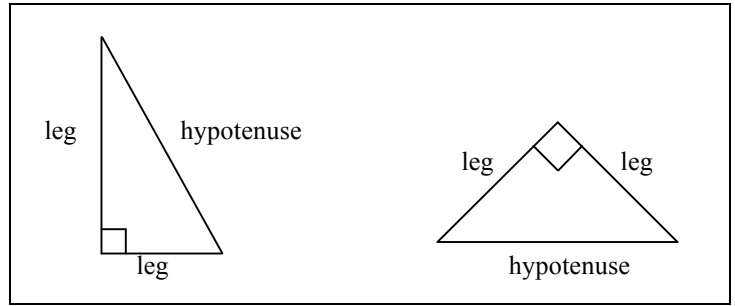
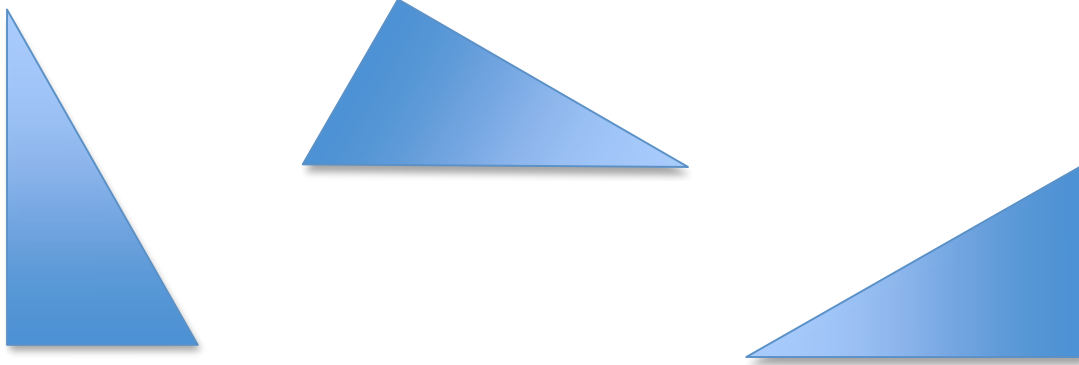


The Pythagorean Theorem
$c^2 = a^2 + b^2$



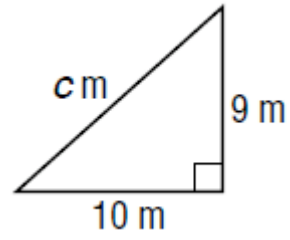
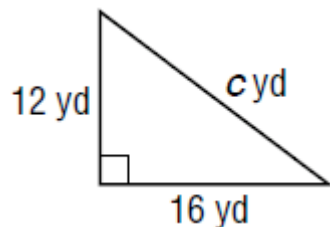
Mark the right angle to each triangle. Label the legs of the triangle with a and b . Label the hypotenuse c .



Find the missing measure of a right triangle given the information/diagram. Let c be the measure of the hypotenuse.

<p>Set 1</p>	
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Set 2



Set 3

$$a = ?, b = 24, c = 26$$

$$a = 16, b = ?, c = 34$$

Set 4

$$a = 24, b = ?, c = 40$$

$$a = ?, b = 32, c = 39$$

WORD PROBLEMS

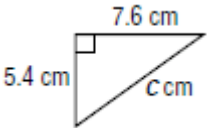
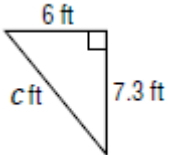
Set 5

ARCHITECTURE The diagonal distance covered by a flight of stairs is 21 ft. If the stairs cover 10 ft horizontally, how tall are they?

Set 6

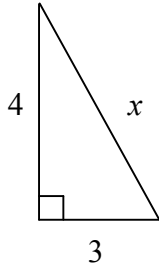
KITES A kite is flying at the end of a 300-foot string. It is 120 feet above the ground. About how far away horizontally is the person holding the string from the kite?

Review - Find the missing measure of a right triangle given the information/diagram. Let c be the measure of the hypotenuse.

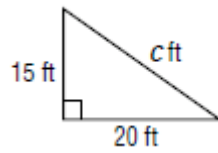
<p>R#1 $a = 21, b = ?, c = 48$</p>	<p>Determine whether the following are measurements for a right triangle.</p> <p>14, 5, 4</p>
<p>R#2</p> 	
<p>R#3 $a = 18, b = 29, c = ?$</p>	<p>Determine whether the following are measurements for a right triangle.</p> <p>3, 4, 5</p>

Homework – Find the missing measure of the right triangle.

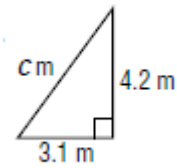
1)



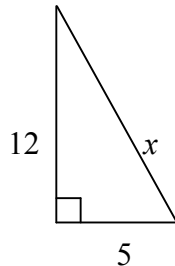
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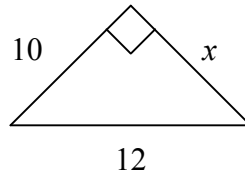
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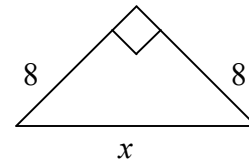
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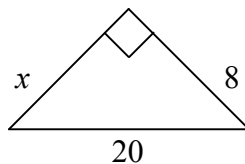
5)



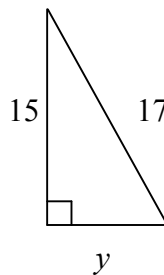
6)



7)



8)



9)

In $\triangle ABC$ with right $\angle C$, $b = 23$, $c = 30$, find the measure of a to the nearest tenth.

10)

In $\triangle ABC$ with right $\angle C$, $a = 3$, $b = 7$, find the measure of c to the nearest tenth.

11)

In $\triangle ABC$ with right $\angle C$, $b = 9$, $c = 18$, find the measure of a to the nearest tenth.

12)

In $\triangle ABC$ with right $\angle C$, $a = 0.7$, $b = 0.4$, find the measure of c to the nearest tenth.

13) A 15-ft ladder is leaning against a building. The base of the ladder is 5 ft from the building. To the nearest foot, how high up the building does the ladder reach?

14) A brick walkway forms the diagonal of a square playground. The walkway is 24 m long. To the nearest tenth of a meter, how long is a side of the playground?

The lengths of three sides of a triangle are given. Determine whether each triangle is a right triangle.

17. 5 m, 5 m, 10 m

18. 9 in., 12 in., 15 in.