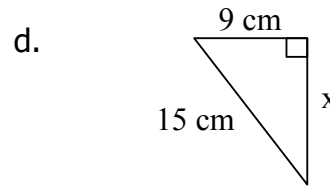
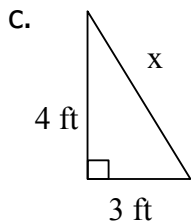
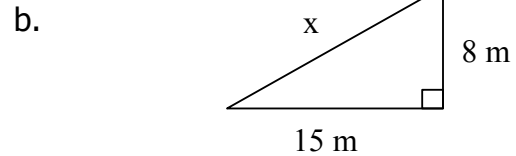
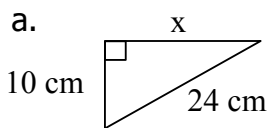


NAME _____

Using the Pythagorean Theorem

1. Explain the Pythagorean Theorem. What does each letter stand for?

2. Find the missing lengths in each right triangle. Estimate to the nearest tenth.



3. A right triangle has legs a and b and hypotenuse c . Find each missing length. Estimate to the nearest tenth.

a. $a = 12, c = 20, b = ?$

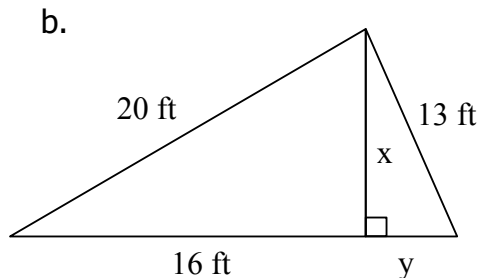
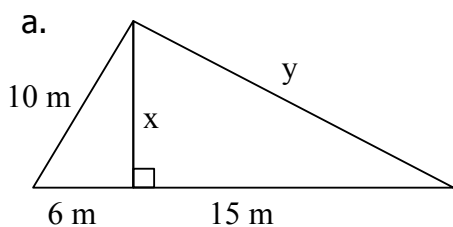
b. $a = 14, b = 48, c = ?$

c. $b = 2.4, c = 4, a = ?$

d. $a = 39, c = 89, b = ?$

4. A major league baseball diamond is a square that is 90 feet on each side. When a runner on first tries to steal second base, the catcher has to throw the ball from home plate to second base. Estimate the length of that throw to the nearest tenth? Show your work.

5. Evaluate the value of x in each triangle first. Then evaluate the value of y . Show your work.



6. Find the area of each triangle to the nearest tenth. First you must evaluate the height h .

$$\text{Area of a triangle} = \frac{1}{2} \bullet \text{base} \bullet \text{height}$$

