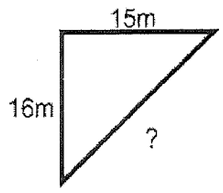
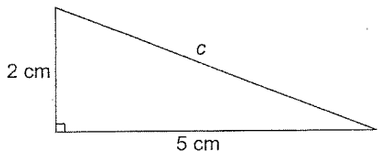
Pythagorean Theorem Test

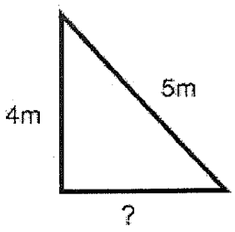
Name: _____ **Class:**_____

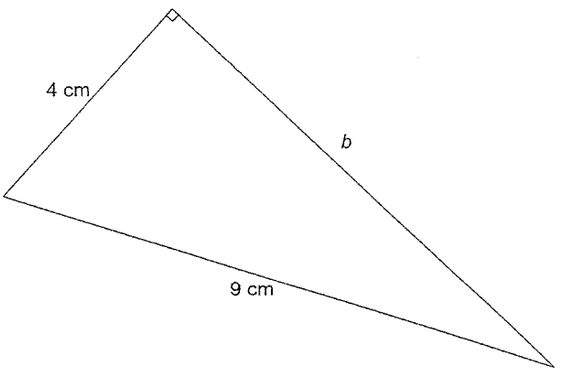
1. Find the length of the indicated side in each triangle.

a)

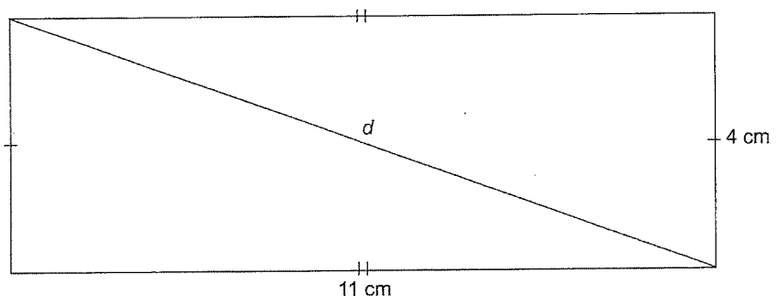








2. Find the length of the diagonal, *d*, in this rectangle.



3. Determine whether a triangle with each set of side lengths is a right triangle. Justify your answers.

a) 7 cm, 7 cm, and 10 cm

b) 8 cm, 6 cm, and 10 cm

4. Multiple Choice

a). ____ $11^2 =$

A) 121 B) 22 C) 222 D) 21

b). ____ $\sqrt{5}$ is about:

A) 5 B) 4 C) 9 D) 2

c). ____ $\sqrt{144}$ is

A) 72 B) 144 C) 11 D) 12

d). ____ $\sqrt{625}$ is:

A) 15 B) 25 C) 5 D) 50

e) ____ Pythagorean Theorem states:

A) $a^2 - b^2 = h^2$ B) $b^2 + h^2 = a^2$ C) $a^2 + b^2 = h^2$

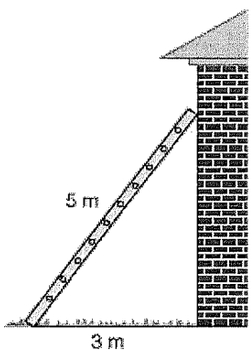
D) $a^2 \times b^2 = c^2$

f). ____ The name of the side of the triangle opposite the right angle is called:

A) the leg B) the right side C) Pythagorus D) hypotenuse

5.

A 5-m ladder leans against a house. It is 3 m from the base of the wall. How high does the ladder reach?



6. Which sets of numbers below are Pythagorean triples?

a) 11, 15, 24

b) 24, 32, 40

7. A baseball diamond is a square with side length about 27 m. The player throws the ball from second base to home plate. How far did the player throw the ball? Give your answer to two decimal places.