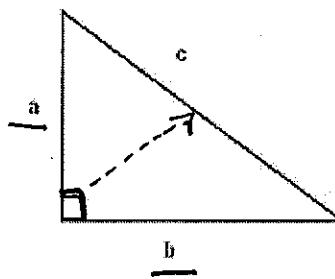


Identify the parts of the right triangle

90°

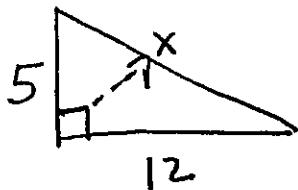


a: leg

b: leg

c: = hypotenuse

Try this one



c is always the hypotenuse = longest side

## The Famous Pythagorean Theorem:

$$a^2 + b^2 = c^2$$

Solve for the indicated side of the right triangles:

1.

$$3^2 + 4^2 = c^2$$

$$9 + 16 = c^2$$

$$\sqrt{25} = \sqrt{c^2}$$

$$\boxed{\sqrt{5} \cdot \cancel{5}} = \sqrt{c \cdot \cancel{5}}$$

$$5 = c$$

3.

$$8^2 + 6^2 = c^2$$

$$64 + 36 = c^2$$

$$\sqrt{100} = \sqrt{c^2}$$

$$10 = c$$

2.

$$3^2 + 6^2 = x^2$$

$$9 + 36 = x^2$$

$$\sqrt{45} = \sqrt{x^2}$$

$$\sqrt{45} = x$$

$$\frac{\sqrt{45}}{\sqrt{5 \cdot 9}}$$

$$\sqrt{5 \cdot \cancel{3} \cdot \cancel{3}}$$

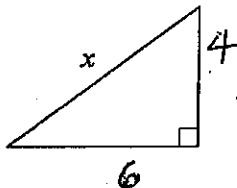
$$3\sqrt{5} = x$$

## Pythagorean Theorem Hypotenuse

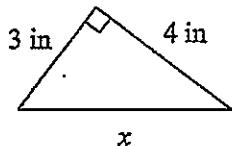
Date \_\_\_\_\_ Period \_\_\_\_\_

Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.  
SHOW ALL WORK!

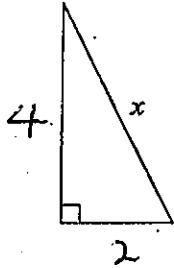
1)



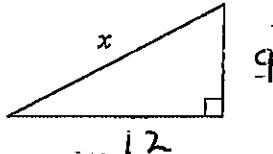
2)



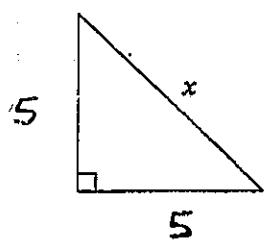
3)



4)



5)



State if each triangle is a right triangle.

