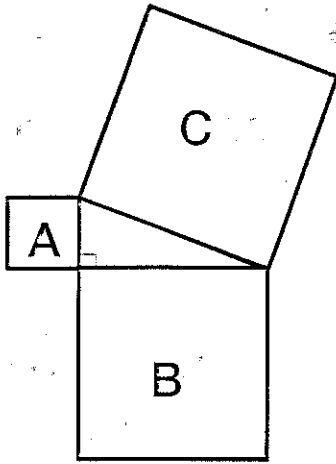


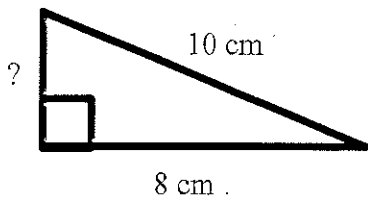
Name: _____

1. Explain in words what the Pythagorean theorem says about the areas of the squares A, B and C?



The areas of squares A and B added together equals the area of square C

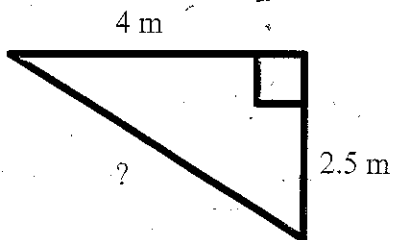
2. Use the Pythagorean theorem to determine the length of the missing side



$$10^2 - 8^2 = 36$$

$$\sqrt{36} = 6 \text{ cm}$$

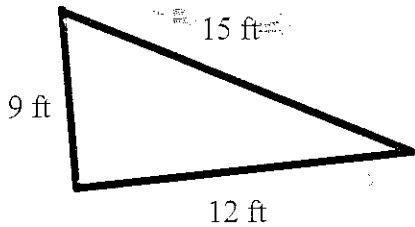
3. Use the Pythagorean theorem to determine the length of the hypotenuse.



$$4^2 + 2.5^2 = 22.25$$

$$\sqrt{22.25} = 4.72 \text{ m}$$

4. Is the following a right triangle?

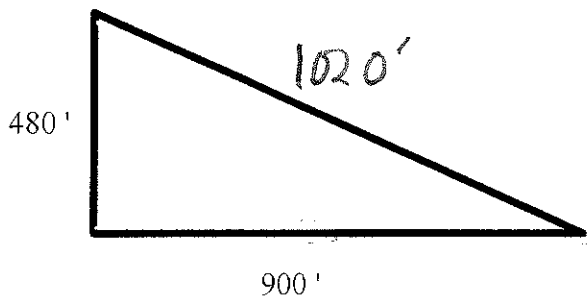


$$9^2 + 12^2 = 225$$

$$15^2 = 225$$

$a^2 + b^2 = c^2$ so yes
the triangle is
right

5. Lora is building a fence around a triangular section of her property, she will be spacing the fence posts 6' apart, how many fence posts will she need?



$$480^2 + 900^2 = 1040400$$

$$\sqrt{1040400} = 1020$$

Total perimeter is

$$480 + 900 + 1020$$

$$= 2400'$$

$\div 6$ since posts are every 6'

$$= 400$$

$- 3$ since each corner is used twice
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