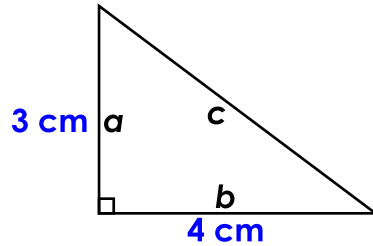Name: _____

Pythagorean Theorem

The Pathagorean Theorem can be used to find the length of a side of a right triangle if the lengths of the other two sides are known. The formula to find the length of any side of a right triangle is $a^2 + b^2 = c^2$. The **hypotenuse** is side **c**. It is always the longest side and is always opposite the right angle.

example:

3 cm a c

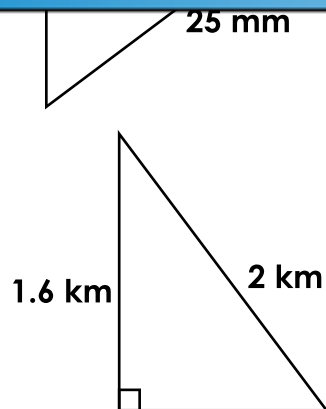b
4 cm

$a^2 + b^2 = c^2$
$3^2 + 4^2 = c^2$
$9 + 16 = c^2$
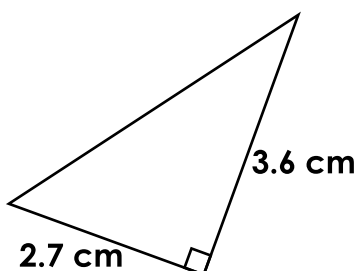$25 = c^2$
$5 = c$

Find the lengths of the missing sides.

25 mm

_____

1.6 km   2 km

_____

3.6 cm

2.7 cm
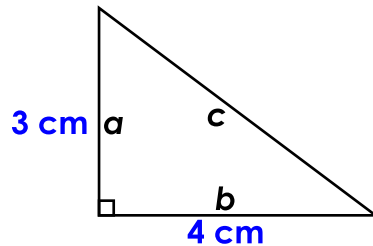
_____

Pythagorean Theorem

The Pathagorean Theorem can be used to find the length of a side of a right triangle if the lengths of the other two sides are known. The formula to find the length of any side of a right triangle is **$a^2 + b^2 = c^2$**. The **hypotenuse** is side **c**. It is always the longest side and is always opposite the right angle.

example:

3 cm a   c

b

4 cm

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

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

$9 + 16 = c^2$

$25 = c^2$

$5 = c$

Find the lengths of the missing sides.