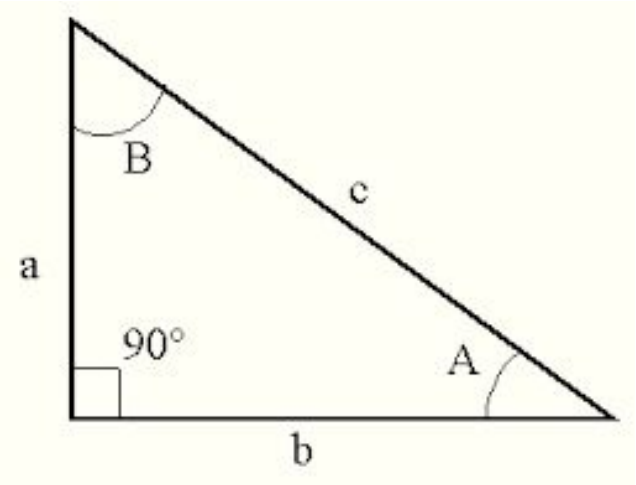
PYTHAGORA'S THEOREM

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

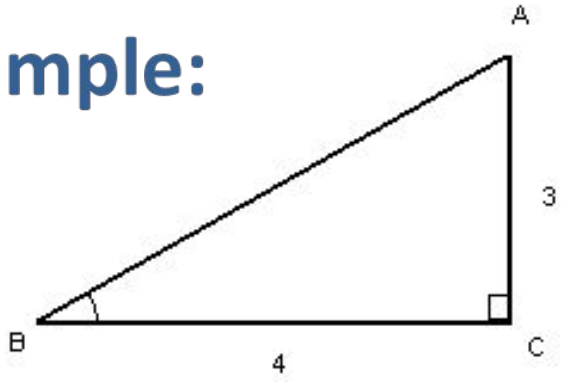
'Pythagoras theorem'

(Pythagoras was a Greek mathematician who lived around 600 BC)

(a 'theorem' is a mathematical statement that can be proven)



Example:



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$c^2 = 3^2 + 4^2 = 9 + 16 = 25$

therefore $\boldsymbol{c = \sqrt{25} = 5}$

PYTHAGORA'S THEOREM (Cont.)

If the three lengths of a triangle are such that:

$$a^2 \neq b^2 + c^2$$

then the triangle is NOT right-angled.

Example:

$45^2 = 2{,}025$

and $40^2 + 20^2 = 2{,}000$

Therefore $45^2 \neq 40^2 + 20^2$

So the triangle is NOT right-angled.