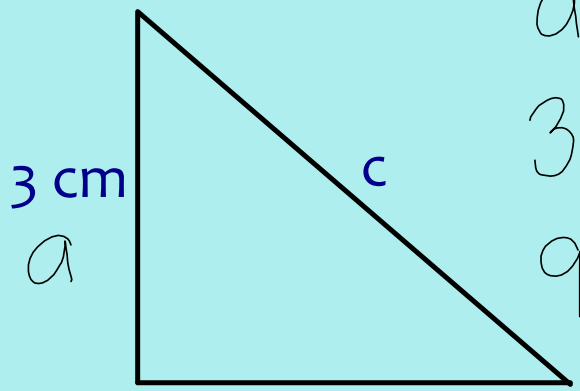
Practice as a class. Find the measure of side length c.



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

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

$9+16=c^2$

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

$5=c$

5cm

$\sqrt{4}=2$

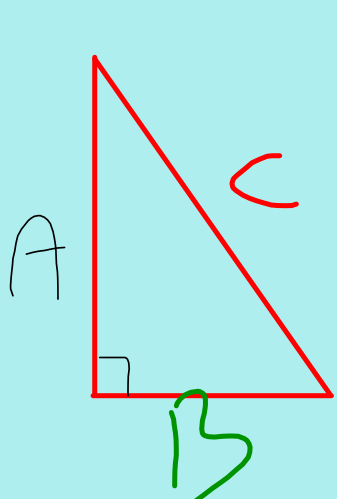
$2\cdot2=4$

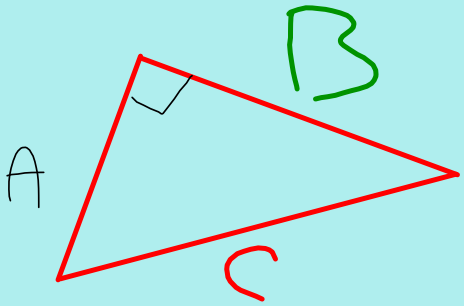
$\sqrt{16}=4$

$4\cdot4$

$\sqrt{10}=3.2$

What happens when the right triangle doesn't look like what we are used to?

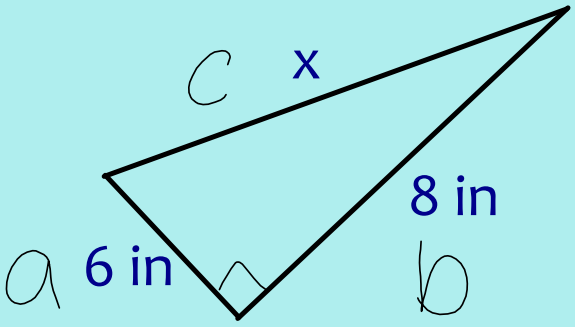




$a^2+b^2=c^2$

Which sides are the legs and which are the hypotenuse?

Example: Find the measure of the missing side.



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

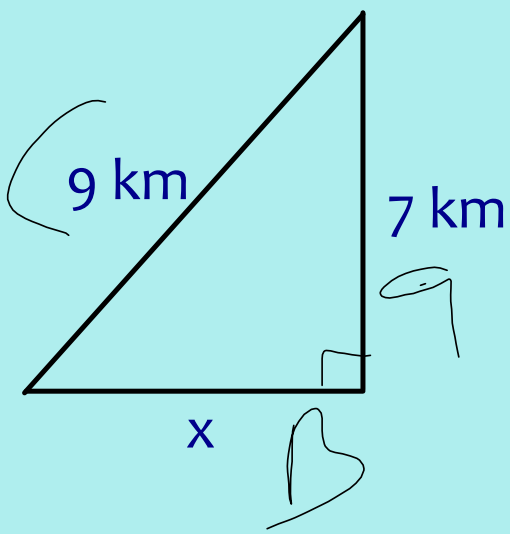
$6^2 + 8^2 = c^2$

$36 + 64 = c^2$

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

$10 = c$

Example: Find the measure of the missing side.



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

$7^2 + x^2 = 9^2$

$49 + x^2 = 81$

$-49 \quad -49$

$\sqrt{x^2} = \sqrt{32}$

Classwork: Worksheet #7 - 12

#13-18

Using the Pythagorean Theorem to Prove a Right Triangle

Example: Do the side lengths make a right triangle?

21, 20, 29

a b c

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

$21^2+20^2=29^2$

$441+400=841$

$841=841$

yes, $\triangle$

Example: Do the side lengths make a right triangle?

30, 24, 7

c a b

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

$24^2+7^2=30^2$

$576+49=900$

$625=900$

No

Coloring Activity!

a = 6, b = 8, c = 10
Verify if the sides form a right triangle.

If yes, color  1 red.

If no, color  1 yellow.