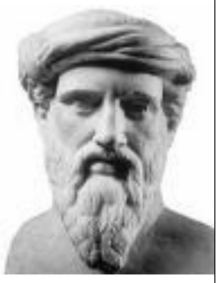
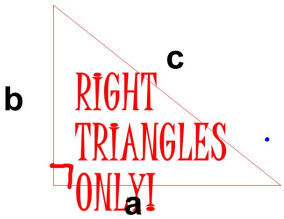
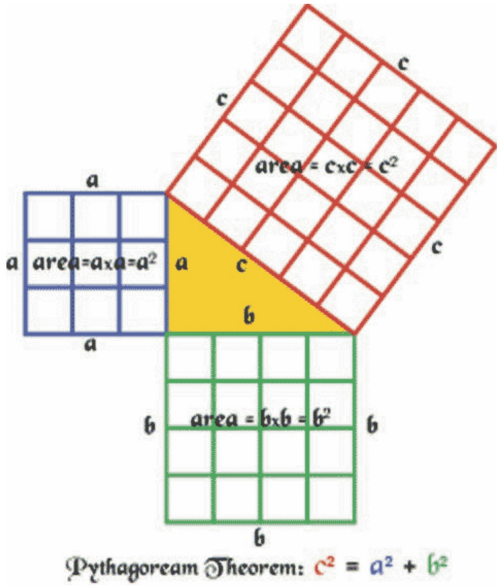
Pythagorean Theorem
Part 1

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

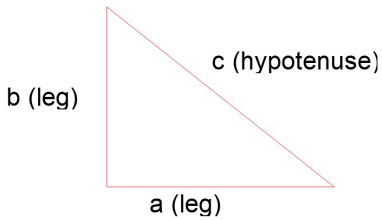






In a right triangle, the square of the length of the hypotenuse equals the sum of the squares of the lengths of the legs.

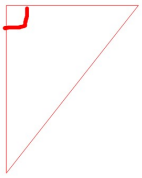
$a^2 + b^2 = c^2$



Pythagorean Theorem Song

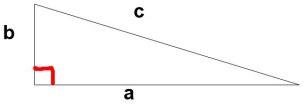
Leg, Leg, Hypotenuse
Leg, Leg, Hypotenuse
Leg, Leg, Hypotenuse
Pythagorean Theorem!

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

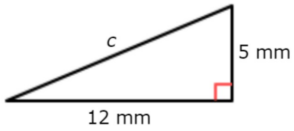


Where is the right angle?
Where is the right angle?
There is the right angle.
Across is the hypotenuse!

Leg, Leg, Hypotenuse
Leg, Leg, Hypotenuse
Leg, Leg, Hypotenuse
Pythagorean Theorem!



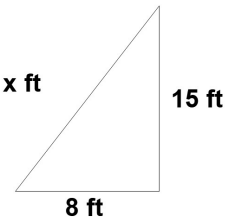
Use the Pythagorean Theorem to find c.



1. Draw diagram if not given.
2. Write the P.T
3. Plug in what you know.
4. Solve for what's missing

Use the Pythagorean Theorem to solve for the missing measure

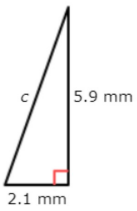
1. Draw diagram if not given.
2. Write the P.T
3. Plug in what you know.
4. Solve for what's missing



A picture frame measures 33 cm by 44 cm, what is the length of the diagonal of the frame?

1. Draw diagram if not given.
2. Write the P.T
3. Plug in what you know.
4. Solve for what's missing

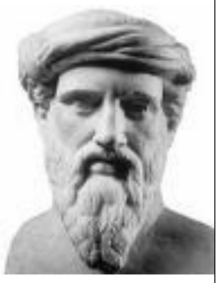
Use the Pythagorean Theorem to find c.

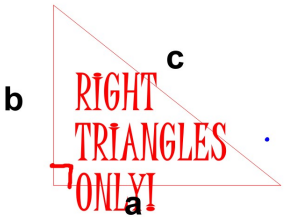


1. Draw diagram if not given.
2. Write the P.T
3. Plug in what you know.
4. Solve for what's missing

Pythagorean Theorem Part 2

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





Use the Pythagorean Theorem to solve for the missing measure.

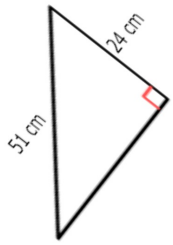
1. **Draw diagram.**
2. **Write the P.T.**
3. **Plug in.**
4. **Solve.**

What's different?

How do we solve it?

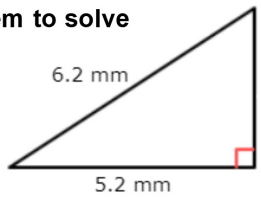
Use the Pythagorean Theorem to solve for the missing measure.

1. **Draw diagram.**
2. **Write the P.T.**
3. **Plug in.**
4. **Solve.**



Use the Pythagorean Theorem to solve for the missing measure.

1. **Draw diagram.**
2. **Write the P.T.**
3. **Plug in.**
4. **Solve.**



Maria swims in her pool daily. If it is 4 meters wide and 16 meters diagonally across, how long is the pool?

1. Draw diagram
2. Write the P.T
3. Plug in
4. Solve.