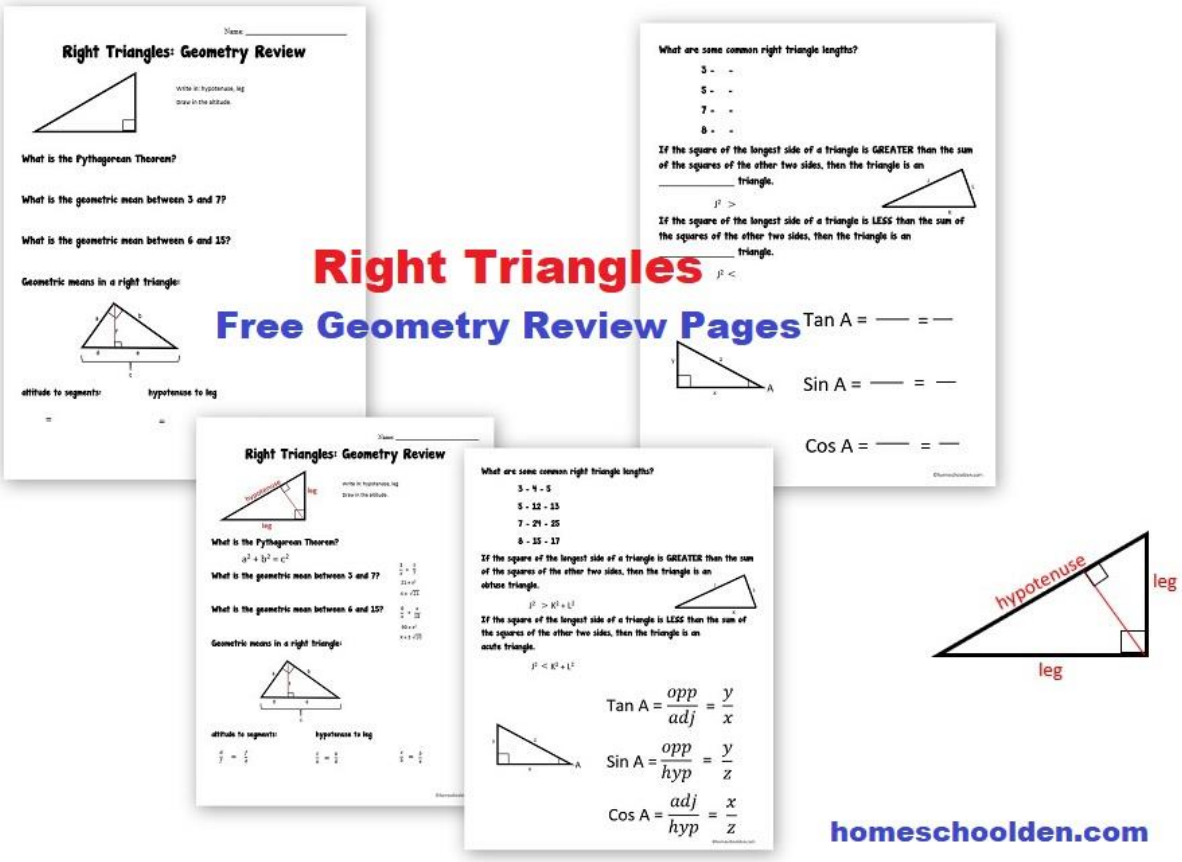
Right Triangles

Geometry Review Worksheets

Made by Liesl, homeschoolden.com



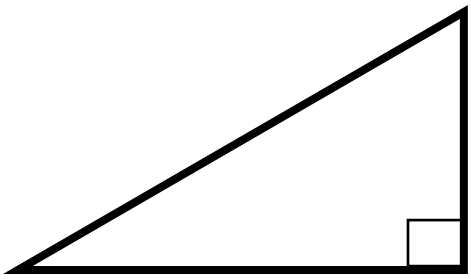
These are a couple of review pages I made for my son. We have plenty of practice problems, but I wanted to be sure he knew all of the basic facts for this chapter.

If your student needs some extra practice with this material, this pdf is helpful (and has answers provided):

http://swcontent.spokaneschools.org/cms/lib/WA01000970/Centricity/Domain/3459/Right%20Triangle%20Trig.%20Reveiw%20Packet.pdf

Name: _____

Right Triangles: Geometry Review



Write in: hypotenuse, leg

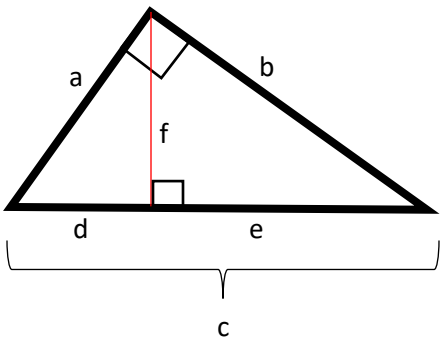
Draw in the altitude.

What is the Pythagorean Theorem?

What is the geometric mean between 3 and 7?

What is the geometric mean between 6 and 15?

Geometric means in a right triangle:



altitude to segments: **hypotenuse to leg**

= = =

What are some common right triangle lengths?

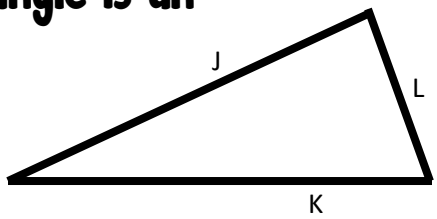
3 - -

5 - -

7 - -

8 - -

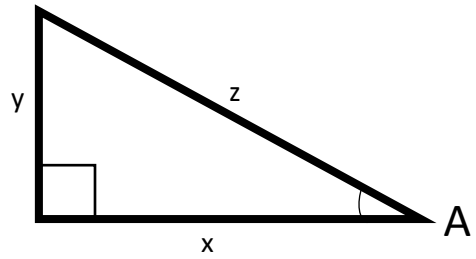
If the square of the longest side of a triangle is GREATER than the sum of the squares of the other two sides, then the triangle is an _____ triangle.



$J^2 >$

If the square of the longest side of a triangle is LESS than the sum of the squares of the other two sides, then the triangle is an _____ triangle.

$J^2 <$



$$\text{Tan A} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\text{Sin A} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\text{Cos A} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

Name: _____

Right Triangles: Geometry Review

Sin θ =

Cos θ =

Tan θ =

S _____

O _____

H _____

C _____

A _____

H _____

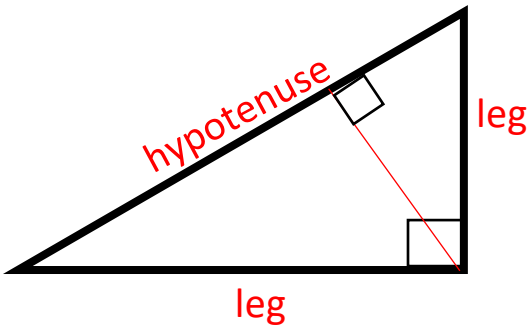
T _____

O _____

A _____

ANSWERS

Right Triangles: Geometry Review



Write in: hypotenuse, leg

Draw in the altitude.

What is the Pythagorean Theorem?

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

What is the geometric mean between 3 and 7?

$\frac{3}{x} = \frac{x}{7}$

$21 = x^2$

$x = \sqrt{21}$

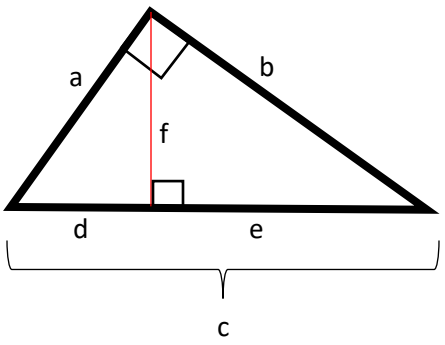
What is the geometric mean between 6 and 15?

$\frac{6}{x} = \frac{x}{15}$

$90 = x^2$

$x = 3\sqrt{10}$

Geometric means in a right triangle:



altitude to segments:

$\frac{d}{f} = \frac{f}{e}$

hypotenuse to leg

$\frac{c}{a} = \frac{a}{d}$

$\frac{c}{b} = \frac{b}{e}$

What are some common right triangle lengths?

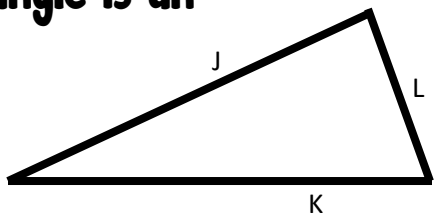
3 - 4 - 5 (plus 6-8-10, 9-12-15, 12-16-20, etc.)

5 - 12 - 13 (plus 10-24-26, etc.)

7 - 24 - 25 (plus 14-48-50, etc.)

8 - 15 - 17 (plus 16-30-34, etc.)

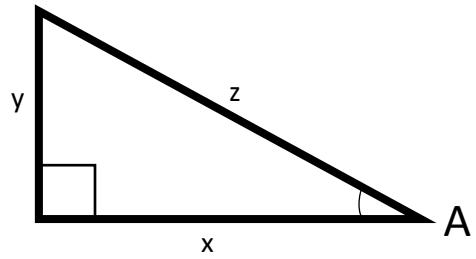
If the square of the longest side of a triangle is GREATER than the sum of the squares of the other two sides, then the triangle is an obtuse triangle.



$J^2 > K^2 + L^2$

If the square of the longest side of a triangle is LESS than the sum of the squares of the other two sides, then the triangle is an acute triangle.

$J^2 < K^2 + L^2$



$$\text{Tan A} = \frac{opp}{adj} = \frac{y}{x}$$

$$\text{Sin A} = \frac{opp}{hyp} = \frac{y}{z}$$

$$\text{Cos A} = \frac{adj}{hyp} = \frac{x}{z}$$

Remember this with the "word": SOH CAH TOA

Sin=$\frac{opp}{hyp}$ Cos=$\frac{adj}{hyp}$ Tan=$\frac{opp}{adj}$

Right Triangles: Geometry Review

$$\text{Sin } \theta = \frac{opp}{hyp}$$

$$\text{Cos } \theta = \frac{adj}{hyp}$$

$$\text{Tan } \theta = \frac{opp}{adj}$$

S sine

O opposite

H hypotenuse

C cosine

A adjacent

H hypotenuse

T tangent

O opposite

A adjacent