October 1, 2018, Monday

ASA

1)

2) SSS

3)

$\frac{10}{8} = 1.25$

$\frac{10}{8} = 1.25$

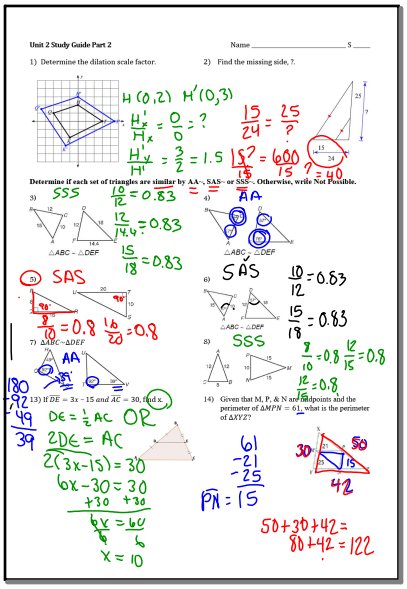
$\frac{20}{16} = 1.25$ 3 ways

Vocabulary Check!

1) Draw two triangles which are congruent (with leg lengths &/or angles) 3 ways
2) Draw two triangles which are similar (with leg lengths &/or angles)
3) Draw a midsegment of a triangle (using tic marks where appropriate)
4) What two geometric tools can you use to make geometric constructions?

compass, straightedge, protator.

Sep 20-8:31 AM



Unit 2 Study Guide Part 2 Name _____ S ____

1) Determine the dilation scale factor.

2) Find the missing side, ?.

H (0,2) H'(0,3)

$\frac{H'_x}{H_x} = \frac{0}{0} = ?$

$\frac{H'_y}{H} = \frac{3}{2} = 1.5$

$\frac{15}{24} = \frac{25}{?}$ $\frac{15?}{15} = \frac{600}{15}$? = 40

Determine if each set of triangles are similar by AA~, SAS~ or SSS~. Otherwise, write Not Possible.

3) SSS $\frac{10}{12} = 0.83$ $\frac{12}{14.4} = 0.83$ $\frac{15}{18} = 0.83$

4) AA

6) SAS $\frac{10}{12} = 0.83$ $\frac{15}{18} = 0.83$

7) SAS $\frac{8}{10} = 0.8$ $\frac{16}{20} = 0.8$

8) SSS $\frac{8}{10} = 0.8$ $\frac{12}{15} = 0.8$ $\frac{12}{15} = 0.8$

13) If $DE = 3x - 15$ and $AC = 30$, find x.

$DE = \frac{1}{2}AC$ OR $2DE = AC$

$2(3x-15) = 30$

$6x - 30 = 30$

$+30 \quad +30$

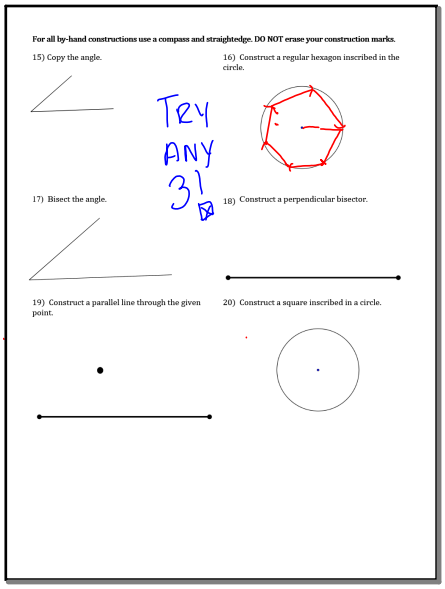
$\frac{6x}{6} = \frac{60}{6}$

$x = 10$

14) Given that M, P, & N are midpoints and the perimeter of $\Delta MPN = 61$, what is the perimeter of ΔXYZ?

$61 - 21 - 25 = PN = 15$

$50 + 30 + 42 = 80 + 42 = 122$



For all by-hand constructions use a compass and straightedge. DO NOT erase your construction marks.

15) Copy the angle.

16) Construct a regular hexagon inscribed in the circle.

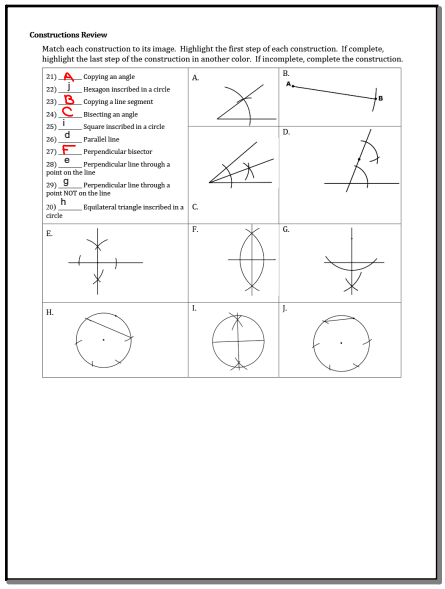
TRY ANY 3!

17) Bisect the angle.

18) Construct a perpendicular bisector.

19) Construct a parallel line through the given point.

20) Construct a square inscribed in a circle.



Constructions Review

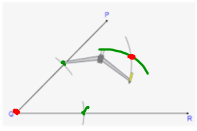
Match each construction to its image. Highlight the first step of each construction. If complete, highlight the last step of the construction in another color. If incomplete, complete the construction.

21) A Copying an angle
22) J Hexagon inscribed in a circle
23) B Copying a line segment
24) C Bisecting an angle
25) I Square inscribed in a circle
26) d Parallel line
27) F Perpendicular bisector
28) e Perpendicular line through a point on the line
29) g Perpendicular line through a point NOT on the line
30) h Equilateral triangle inscribed in a circle

A. B. C. D. E. F. G. H. I. J.

October 2, 2018, Tuesday

SSS



$\frac{2}{4} = .5$ $\frac{2.7}{5} = .54$ $\frac{3}{6} = .5$

Are the triangles similar? How?

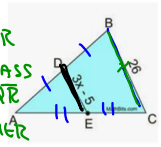
NO, NOT SIMILAR

What is being constructed?

What is the next step?

ANGLE BISECTOR

MOVE THE COMPASS TO SEGMENT QR & MAKE ANOTHER ARC



What is x?

DE = 13

$2(3x-5) = 26$

$6x - 10 = 26$

$+10 \quad +10$

$\frac{6x}{6} = \frac{36}{6}$

$x = 6$

Test!

Sep 20-8:32 AM

Test

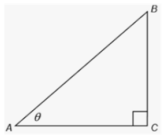
You may skip 1 problem per page, please write 'skip' on that problem otherwise I will grade it.

16. You may complete the construction described or a equilateral triangle inscribed in a circle. Please leave construction marks (= do not erase!).

Oct 2-7:55 AM

Using a laptop find out what
SOHCAHTOA means. Write
it in mathematical terms (letters & variables).

Label the following triangle using the words:
hypotenuse, opposite & adjacent

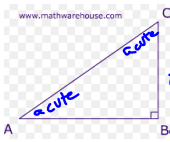


Oct 2-12:15 PM

October 3, 2018, Wednesday

Unit 3 - Right Triangle Trigonometry

State a minimum of 5 characteristics of the following triangle.



1) a right triangle
2) there are sides (legs) and angles.
3) there are 3 vertices
4) there is 1 hypotenuse
5) there are 2 acute angles.

Sep 20-8:33 AM

Unit 3 - What is Right Triangle Trigonometry?

https://youtu.be/5UY8x9SpIQI by Garrick

While watching this video, list 5 important things you discover
in your notebook.

$\sin\theta = \frac{opp}{hyp}$ $\cos\theta = \frac{adj}{hyp}$ $\tan\theta = \frac{opp}{adj}$

"theta" angle measure

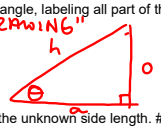
$\sin x = \frac{o}{h}$

Sep 20-8:48 AM

p585

Draw the Ratio in a Right Triangle, labeling all part of the right triangle

"TOP DRAWING"



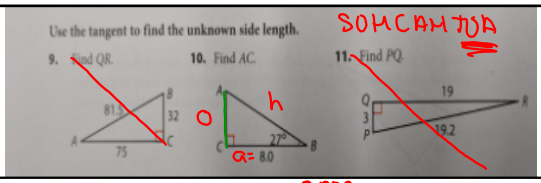
p590 Use the tangent to find the unknown side length. #9-14

p 590 Use the tan-1 to find the unknown angle measure #15-17

Sep 20-10:57 AM

Use the tangent to find the unknown side length.

SOHCAHTOA

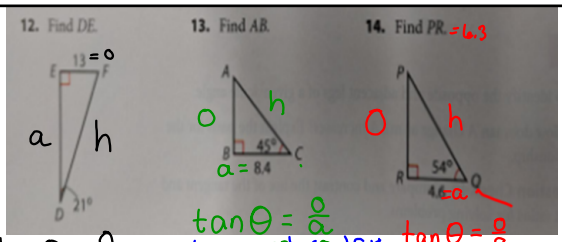


$\tan\theta = \frac{oppo}{adj}$

$8(\tan 27°) = \left(\frac{o}{8}\right)8$

$4.1 = o$

Oct 3-10:17 AM



$\tan\theta = \frac{o}{a}$

$(\tan 21) = \left(\frac{13}{a}\right)a$

$a\tan 21 = \frac{13}{\tan 21}$

$a = 33.9$

$8.4(\tan 45°) = \left(\frac{o}{8.4}\right)8.4$

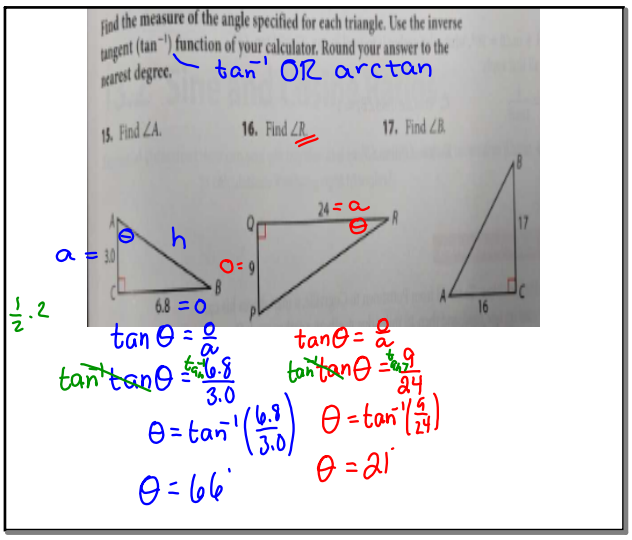
$8.4 = o$

$\tan\theta = \frac{o}{a}$

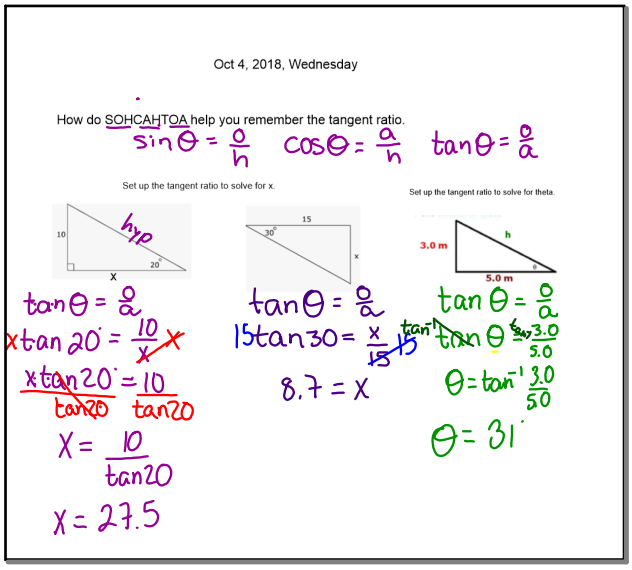
$4.6(\tan 54°) = \left(\frac{o}{4.6}\right)4.6$

$6.3 = o$

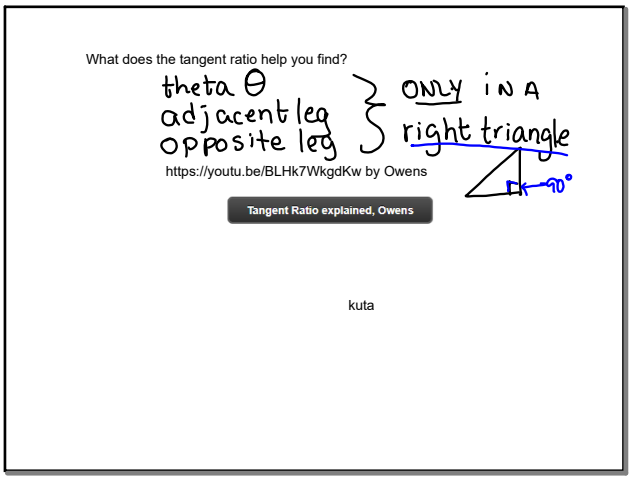
Oct 3-1:10 PM



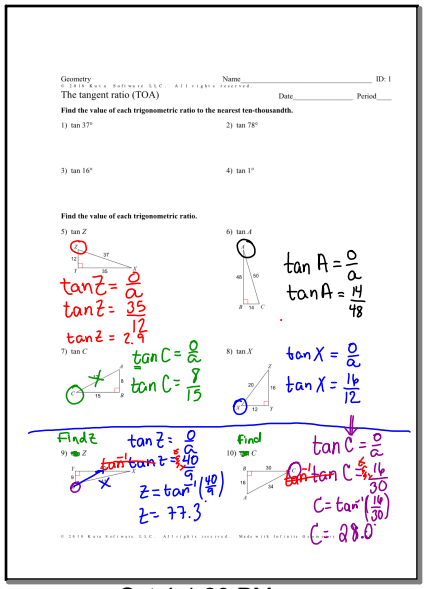
Oct 3-10:18 AM



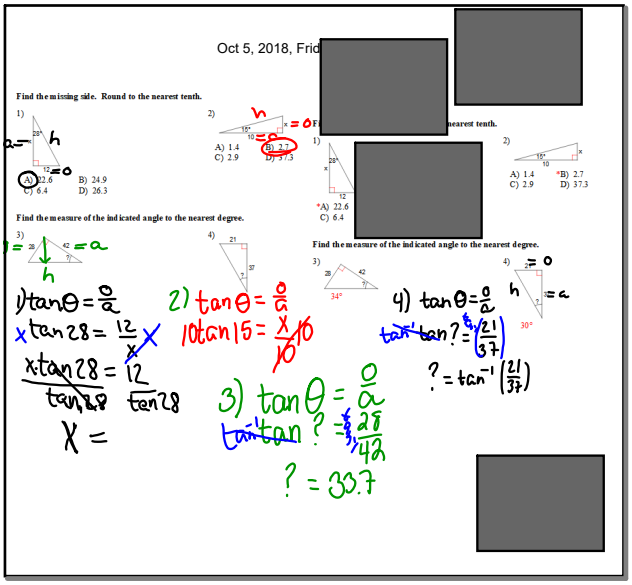
Oct 3-1:41 PM



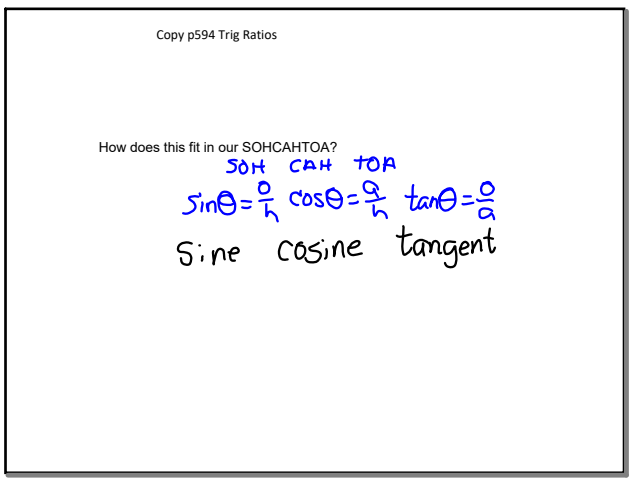
Sep 20-11:00 AM



Oct 4-1:20 PM

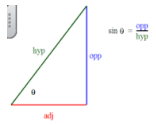


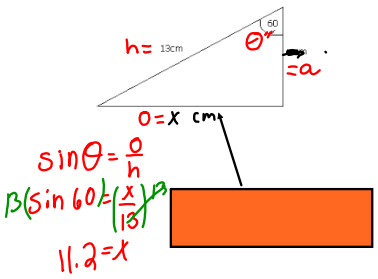
Oct 4-1:46 PM



Sep 20-11:15 AM

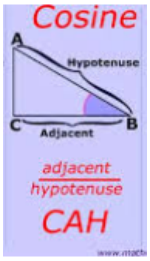
Let's start with sine (SOH)...

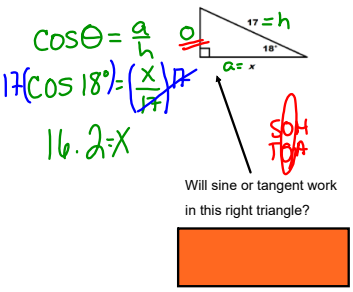




Sep 20-11:17 AM

& now for cosine (CAH)...

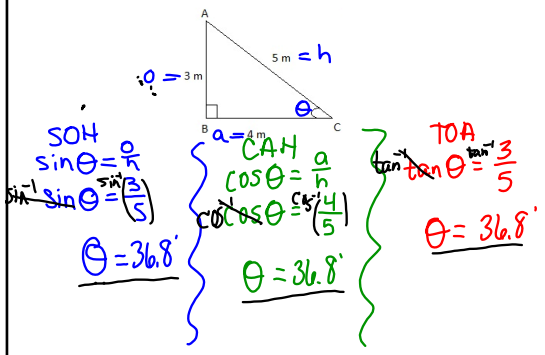




Will sine or tangent work in this right triangle?

Sep 20-11:19 AM

Can you use multiple ratios (SOH), (CAH), and/or (TOA)?



Sep 20-11:23 AM

Let's explore some resources about trigonometry ratios on Geogebra...

https://ggbm.at/Z3wcyhcB brzenzi geobra trig ratio

https://www.geogebra.org/m/sxu5ZSuX#material/UZDfrWDq ayoob trig ratio veiwing triangles

Write down 3 observations for each Geogebra file.

Sep 20-11:25 AM

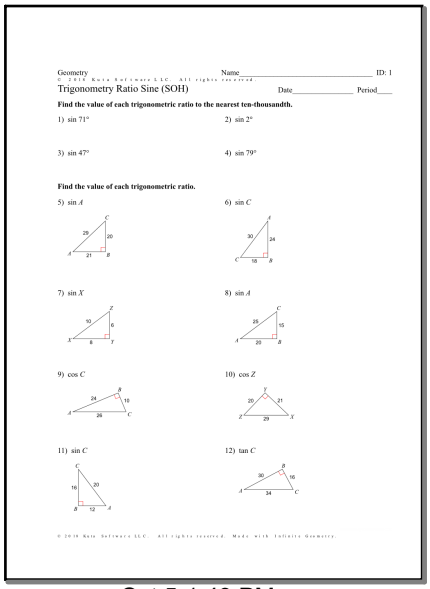
Familiarizing with the Sine ratio - Kuta 1 - 8

Familiarizing with the Cosine ratio - Kuta

Can you choose the correct ratio? - Self assess

Word problems with a group.

Sep 20-11:56 AM



Geometry Name _____ ID: 1

Trigonometry Ratio Sine (SOH) Date_____ Period____

Find the value of each trigonometric ratio to the nearest ten-thousandth.

1) sin 71° 2) sin 2°

3) sin 47° 4) sin 79°

Find the value of each trigonometric ratio.

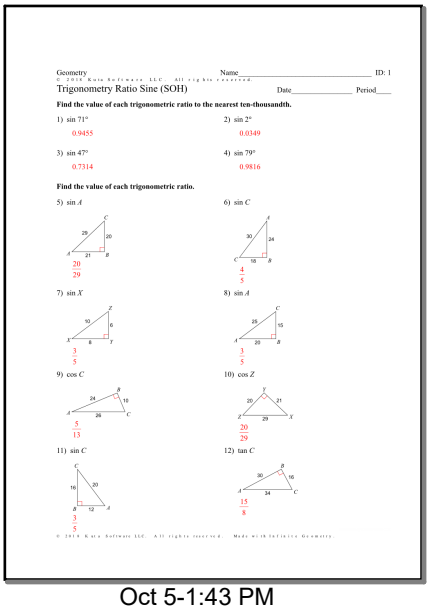
5) sin *A* 6) sin *C*

7) sin *X* 8) sin *A*

9) cos *C* 10) cos *Z*

11) sin *C* 12) tan *C*

Oct 5-1:43 PM



Geometry Name_____ ID: 1

Trigonometry Ratio Sine (SOH) Date_____ Period____

Find the value of each trigonometric ratio to the nearest ten-thousandth.

1) sin 71°

0.9455

2) sin 2°

0.0349

3) sin 47°

0.7314

4) sin 79°

0.9816

Find the value of each trigonometric ratio.

5) sin *A*

$\frac{20}{29}$

6) sin *C*

$\frac{4}{5}$

7) sin *X*

$\frac{3}{5}$

8) sin *A*

$\frac{3}{5}$

9) cos *C*

$\frac{5}{13}$

10) cos *Z*

$\frac{20}{29}$

11) sin *C*

$\frac{3}{5}$

12) tan *C*

$\frac{15}{8}$

Oct 5-1:43 PM