Slide 1 (Sep 20-8:31 AM)

ASA

October 1, 2018, Monday

1) [triangles] 80° 30° 10   80° 30° 10

SSS

2) 20   10   10   8   10   8

3) [triangle]

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

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

$\frac{20}{16} = 1.25$ → 3 ways

Vocabulary Check!

1) Draw two triangles which are congruent (with leg lengths &/or angles)
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, protractor.

Sep 20-8:31 AM

Slide 2

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)

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

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

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

$15? = 600$

$? = 40$

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

3) SSS $\frac{10}{12} = 0.83$ $\frac{12}{14.4} = 0.83$ $\frac{15}{18} = 0.83$ △ABC ~ △DEF

4) AA

SAS $\frac{8}{10} = 0.8$ $\frac{16}{20} = 0.8$ △ABC ~ △DEF

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

7) △ABC ~ △DEF

AA

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

180
-92
49
39

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

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

$2(3x-15) = 30$

$6x - 30 = 30$

$+30 \quad +30$

$6x = 60$

$x = 10$

14) Given that M, P, & N are midpoints and the perimeter of △MPN = 61, what is the perimeter of △XYZ?

61
-21
-25

$\overline{PN} = 15$

30   50   15   42

50+30+42 = 80+42 = 122

Sep 20-8:31 AM [for second page]

Slide 3

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.

Slide 4

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) i   Bisecting an angle
25) ___   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
20) h   Equilateral triangle inscribed in a circle

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

Slide 5 (Sep 20-8:32 AM)

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

$2(3x-5) = 26$

$6x - 10 = 26$

$+10 \quad +10$

$6x = 36$

$x = 6$
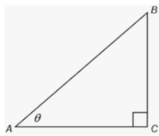
Test!

Sep 20-8:32 AM

Slide 6 (Oct 2-7:55 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).
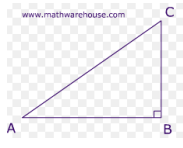
Label the following triangle using the words:
hypotenuse, opposite & adjacent

Oct 2-12:15 PM

October 3, 2018, Wednesday

Unit 3 - Right Triangle Trigonometry

State a minimum of 5 characteristics of the following triangle.

Sep 20-8:33 AM

Unit 3 - What is Right Triangle Trigonometry?

https://youtu.be/5UY8s9SplQI by Garrick

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

Sep 20-8:48 AM

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p585

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

p590 Use the angent 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

What does the tangent ratio help you find?

https://youtu.be/BLHk7WkgdKw by Owens

Sep 20-11:00 AM

Copy p594 Trig Ratios

How does this fit in our SOHCAHTOA?

Sep 20-11:15 AM

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

13cm

60

x cm

hyp

opp

adj

θ

$\sin \theta = \dfrac{opp}{hyp}$

Sep 20-11:17 AM

& now for cosine (CAH)...

Cosine

Hypotenuse

A

C   B

Adjacent

adjacent
hypotenuse
CAH

17

18°

x

Sep 20-11:19 AM

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

A

5 m

3 m

B   4 m   C

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

Familiarizing with the Cosine ratio - Kuta

Can you choose the correct ratio? - Self assess

Word problems with a group.

Sep 20-11:56 AM