~~Starter #8 with the sub.. pass that up~~

Starter #8

③ $-8+7i$

③ $\frac{3i}{(9-9i)}$

x^2-9

difference of squares

$(x+3)(x-3)$

x^2+9

sum of squares

$(\ +\ )(\ -\ )$

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Homework Questions:

9.2

1) yes AA

$\triangle TSR \sim \triangle TVU$

2) AA, SAS, SSS, ASA

$\triangle CDE \sim$ ___ Not Similar

3) yes SAS

$\frac{15}{25} = \frac{21}{35}$

$\frac{3}{5} = \frac{3}{5}$

$\triangle KLM \sim \triangle SRQ$

4)

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Find the missing length. The triangles in each pair are similar.

11) $\frac{18}{9} = \frac{20}{?}$

$18x = 180$

$x = 10$

12)

13) $\frac{20}{10}$ SF = 2

$7 \cdot 2$ 14

14)

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18) $\frac{110}{30}$ $\frac{11}{3}$

$\frac{11}{8}$ $\frac{13}{39}$

$19x+10 = 143$

$-10 \quad -10$

$\frac{133}{19}$

$x = 7$

19)

20)

21) A telephone pole 10 meters tall casts a shadow 8 meters long at the same time that a tree nearby casts a shadow 14 meters long. How tall is the tree?

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21)

$\frac{10}{8} = \frac{x}{14}$

$\frac{10 \cdot 14}{8} = \frac{8x}{8}$

$x = 17.5$ m

$\left(\frac{10}{8}\right)$ SF = 1.25

$1.25 \cdot 14 = 17.5$

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length $\left(\frac{45}{180}\right) \cdot 11$

Area

circle $(\underset{h}{11}, \underset{k}{\sqrt{109}})$

$(x-11)^2 + (y-\sqrt{109})^2 = 36$

$h = 11$

$k = \sqrt{109}$

$r = 6$

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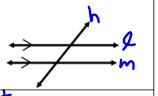
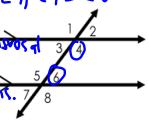
9.3 Line and Angle Relationships (G-SRT.2 & G-CO.9)

These have to be parallel lines

Terms	Definitions	Picture
Transversal	a line that crosses parallel lines	
Corresponding Angles Congruent	angles in the same spot ∠2≅∠6, ∠1≅∠5, ∠3≅∠7, ∠4≅∠8	
Alternate Interior Angles Congruent	In between the lines opposite sides of the transversal ∠4≅∠5, ∠3≅∠6	
Alternate Exterior Angles Congruent	outside the lines opposite sides of the trans. ∠1≅∠8, ∠2≅∠7	
Consecutive Interior Angles Supplementary add up to 180	Inside the lines same side of the transversal ∠4+∠6=180 ∠3+∠5=180	

Superman

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Properties:

Transitive Property	If a = b and b = c then a = c

Theorems and Postulates

Don't need to be parallel

Vertical Angle Theorem	If two angles are vertical angles, then they are congruent.
~~Corresponding Angles Theorem~~ Complementary Add up to 90	If two parallel lines are cut by a transversal, then each pair of corresponding angles are congruent.
~~Alternate Interior Angle Theorem~~ Supplementary add up to 180	If two parallel lines are cut by a transversal, then each pair of alternate interior angles are congruent.

2X = 24 X = 12

2X / 24

2X / 36

90 − 36 = 54

2x = 54

x = 27

Complementary

180 − 112 = 68

(2X+4) 112

2X+4 = 68

−4 −4

64 / 2

X = 32

Supplementary

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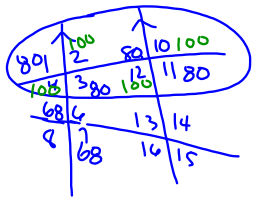
9.3 due 4/21/16



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