7.5

Name (print first and last) _____ **Per**_____ **Date:** 3/6 due 3/7

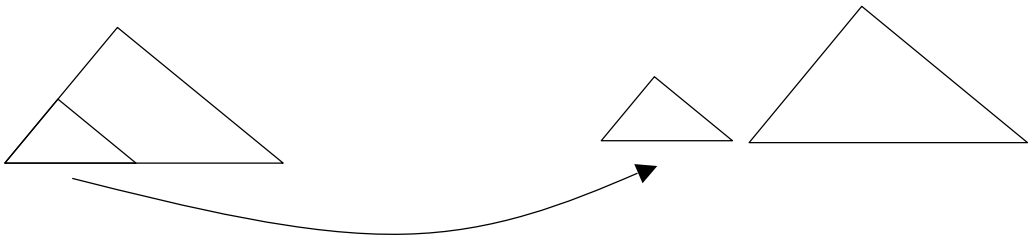
7.5 Similarity: Write and solve proportions from figures **Geometry Regents 2013-2014 Ms. Lomac**

SLO: I can write and solve proportions from figures.

Dilation (Notation D_k)	Segment	Length	Similar	Image
Coordinates	Direction	Congruent	Units	Original
Scale factor	Center of dilation	Origin	Proportional	Corresponding

(1) ☐ Sometimes it is hard to see overlapping triangles. Redrawing the triangles can be a helpful tool.

OVERLAPPING REDRAW SEPARATELY

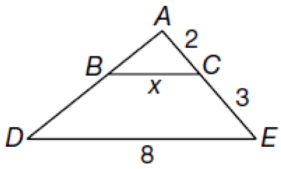


☐ For the example below, redraw the triangles in the diagram. Label the vertices with their letters and the sides with their measurements.

REDRAW SEPARATELY

In the figure below, $\triangle ABC \sim \triangle ADE$. Find the value of x.

Write a proportion matching corresponding sides of each triangle.



$$\frac{BC}{DE} = \frac{AC}{AE}$$

$$\frac{x}{8} = \frac{2}{2+3}$$

$(2 + 3)(x) = 8(2)$ *Find the cross products.*

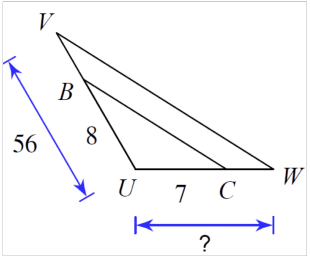
$5x = 16$

$$\frac{5x}{5} = \frac{16}{5}$$

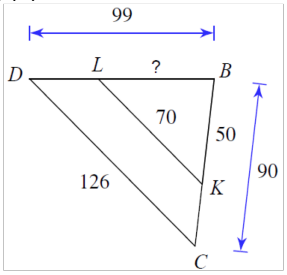
$x = 3.2$

(2) ☐ Use the example as a guide to help you solve the problems below. REDRAW the triangles separately, WRITE A PROPORTION with corresponding sides, and SOLVE the proportion for the variable(s).

☐ (a) Find UW

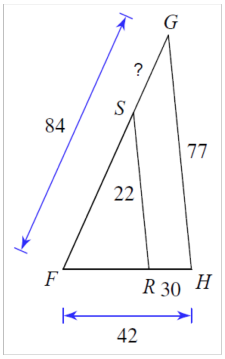


☐ (b) Find LB

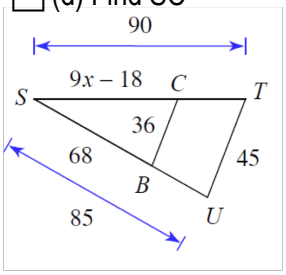


7.5

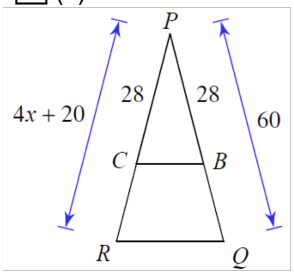
☐ (c) Find SG



☐ (d) Find SC



☐ (e) Find PR

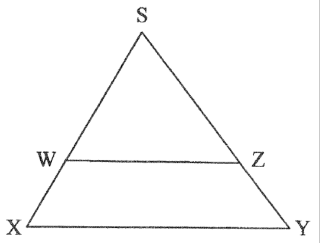


☐ (f) Given: $\Delta SWZ \sim \Delta SXY$

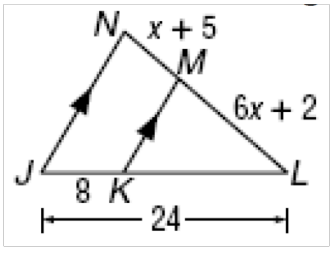
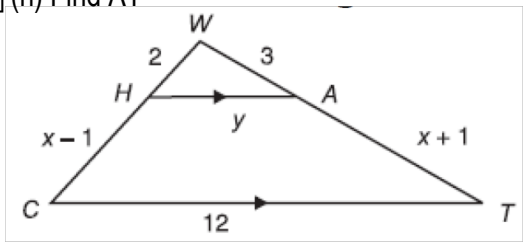
$SW = 15$ $SZ = 12$

$WX = 5$ WZ = 9

Find: SY and XY



☐ (g) Find NM



☐ (h) Find AT