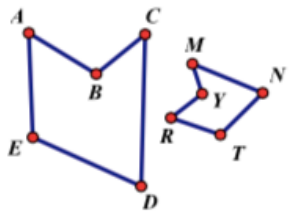
Geometry (G.CO.11) Name: _____

Unit7 WS 2 Date: _____ Period: _____

1. Pentagon ABCDE is similar to Pentagon RYMNT. Complete the following.

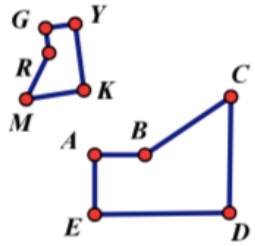
$\angle C \cong \angle$ _____ $\frac{AB}{RY} = \frac{ED}{}$ _____ $\frac{MN}{RT} = \frac{CD}{}$ _____

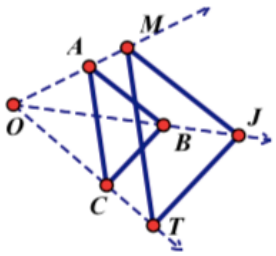


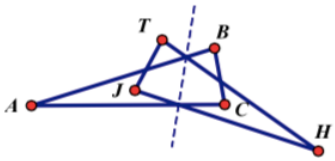
$\angle T \cong \angle$ _____ $\frac{NT}{DE} = \frac{RT}{}$ _____ $\frac{AB}{BC} = \frac{RY}{}$ _____

2. The two figures in each question are similar. Create the similarity statement from the diagram.

a) Pentagon GYKMR ~ _____ b) ΔJMT ~ _____ c) ΔBAC ~ _____







3. Answer the following questions about the dilation centered at O with a scale factor of 3.
OA = 3, OB = 5 and AB = 4

a) A'B' = _____

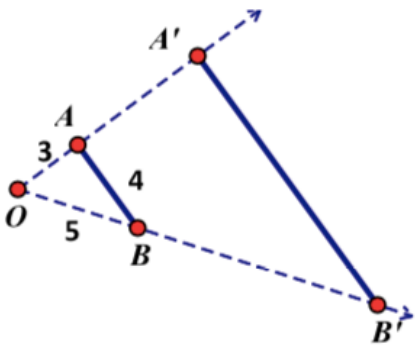
b) OB' = _____

c) OA' = _____

d) AA' = _____ (be careful)

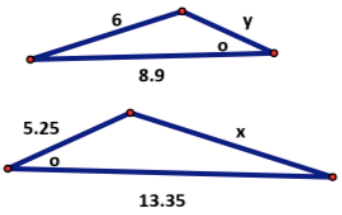
e) BB' = _____ (be careful)

f) What is the ratio of OA:AA'? _____



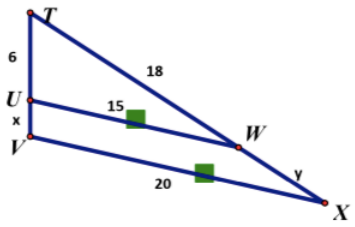
4. Solve for the missing information, given that the two triangles in each question are SIMILAR.

a)



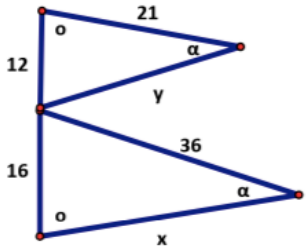
x = _____ y = _____

b)



x = _____ y = _____

c)



x = _____ y = _____

5. If the three sides of a triangle are in ratio of 1:4:2 and the perimeter of the triangle is 10.5 cm. What is the length of the longest side?

Solve the following systems.

6. $\begin{cases} x - 3y = -12 \\ 2x + 4y = 36 \end{cases}$

7. $\begin{cases} 5x + 3y = 17 \\ 15x + 9y = 25 \end{cases}$