**Similarity review sheet** **1/17/19**

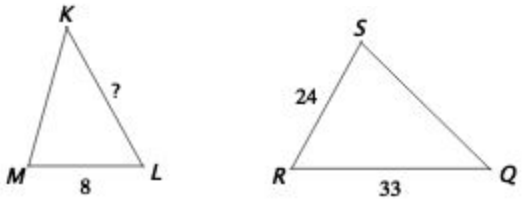
**6.1: I can use similarity to determine sides and angle measures.**

1.

**BUILDING** How tall is the building?

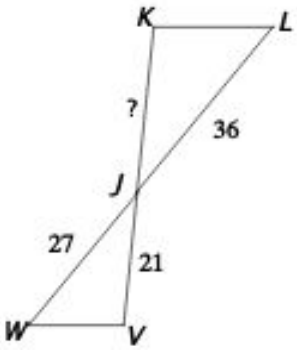

2.

$\triangle QRS \sim \triangle KLM$

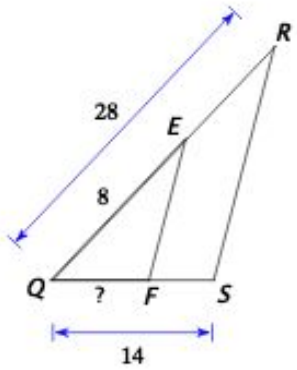



3.

$\triangle JKL \sim \triangle JVW$

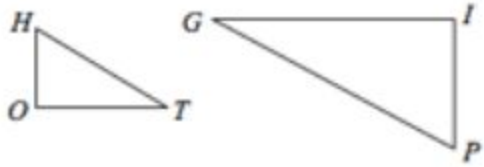



4. Redraw the 2 triangles and solve




5.

**ΔHOT ~ ΔPIG**




∠H corresponds with ∠____. PI matches with _____.

∠O matches with ∠____. IG corresponds with _____.

∠T corresponds with ∠____. GP matches with _____.

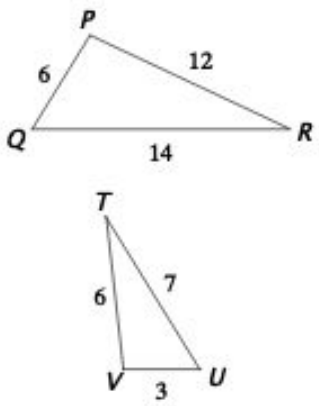
Given < I = 90 and <H = 40 determine the measure of the following angles

<P ____ <G ____ <T _____ <O _____

**6.2: I can prove triangles are similar using appropriate rules**

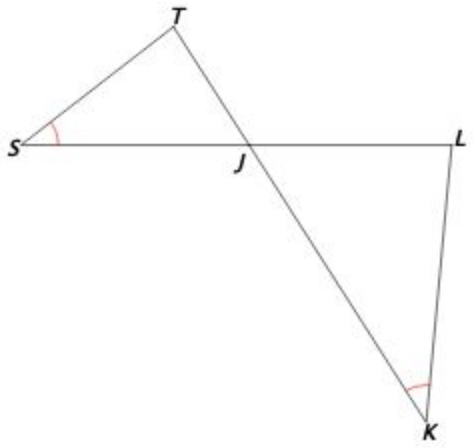
Prove if the following pairs of triangles are similar, showing all work and stating all necessary rules

1)



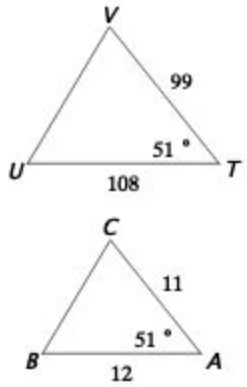

△RQP ~ _____

2)



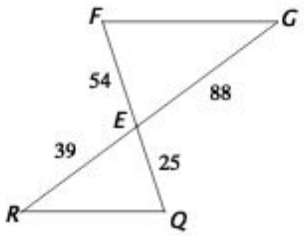

△JKL ~ _____

3)




△TUV ~ _____

4)

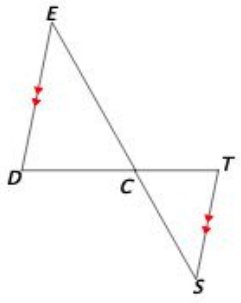



△EFG ~ _____

Mr Wilsain says that the given triangle is “Congruent by AAS, it has a vertical angle, an alternate angle and parallel markers which mean congruent”.

**Explain 2 things** wrong with his answer and correct it.

5)




△CDE ~ _____

1: ……..

2: ……

Correction: ……

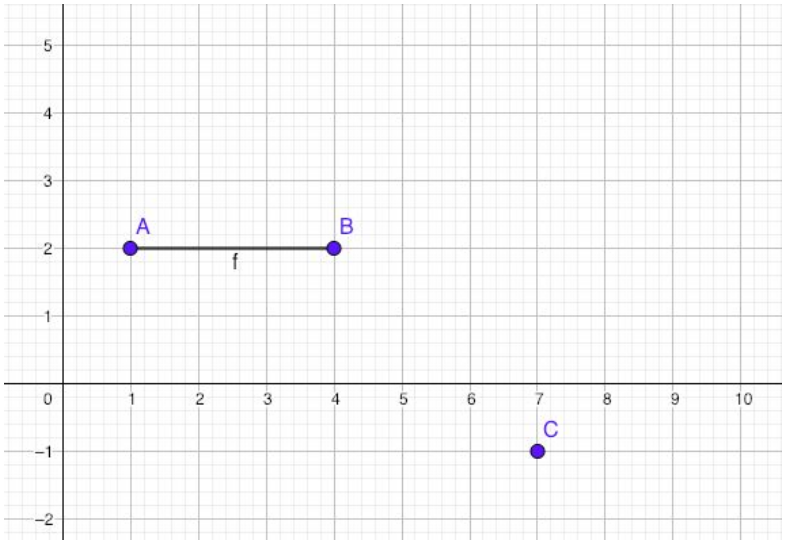
……..

**6.3: I apply dilations and ratios on the coordinate plane**

1. Dilate segment AB by a scale factor of 2 from the origin. (Label it A'B'
2. What is one thing you notice about A'B' compared to AB

   ……

3. Dilate AB by a scale factor of ⅓ from point C (A''B'')




*Complete the sentence*

"The 2nd dilation made the shape …… , but it stayed …….. to the original."

4. Line AB has the equation y = 3/2x + 3

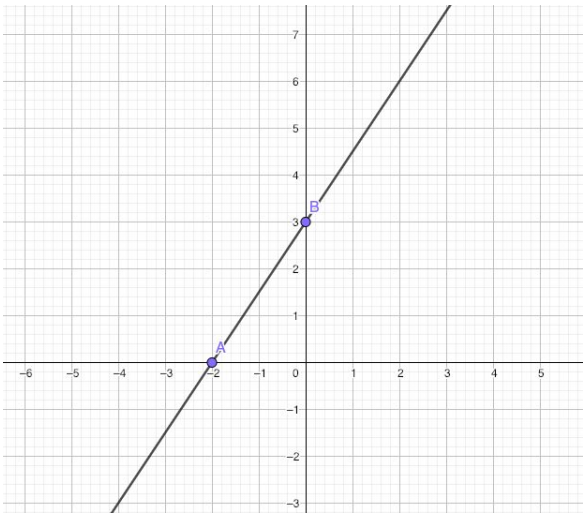
   a. Determine the equation of the line A'B' if it is dilated from the origin at a scale factor of 2

      Y = ……

   b. What part of the equation:

      Changed: ……...

      Stayed the same (was preserved) ……..




   c. What would happen to the equation of the line if it were to be dilated from a point on the line (Such as point B)

   Would the equation change? If so how? If not, why not?
   ***(hint: what happens if you dilate point A by a SF of 2 from point B)***

……...

……...

……...

……...

You will also need to divide a segment at a ratio: You did it yesterday and there is a video at mesamath.