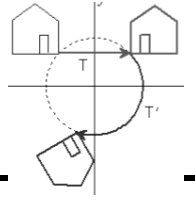


Name _____ Per _____

LO: I can perform a sequence of transformations on a given figure using tracing paper and explain how the sequence results in the final image.

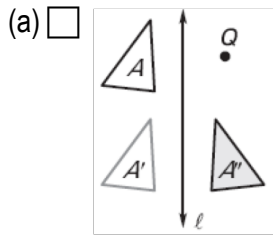


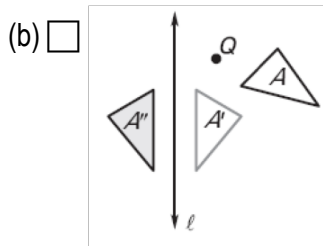
DO NOW On the back of this packet

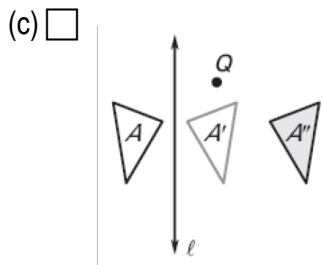
(1) **Composition of transformations** Construct line p parallel to line n .

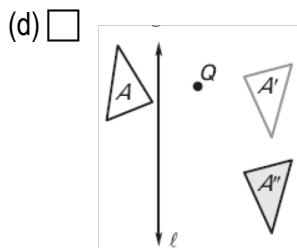
transparencies, dry erase markers, erasers

A sequence or composition of transformations is when a figure undergoes multiple transformations. Describe each composition of transformations below using the terms reflection, rotation, and translation. Include direction when direction matters. (You may want to use plastic sheets to trace and move the shapes.)







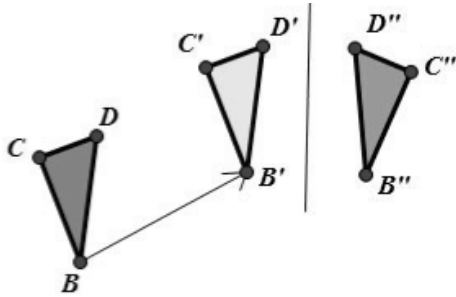


(2)
transparencies, dry
erase markers,
erasers

Writing function notation for transformations

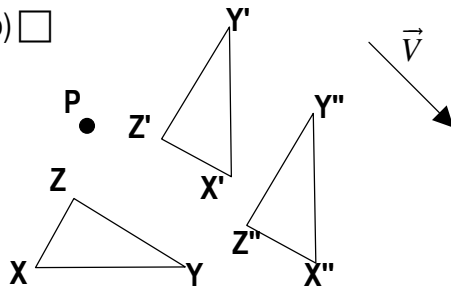
Use the abbreviation examples from problem #3 and the order of compositions from #5 & #6 to describe each composition of transformations and then write the function notation for it.

(a)



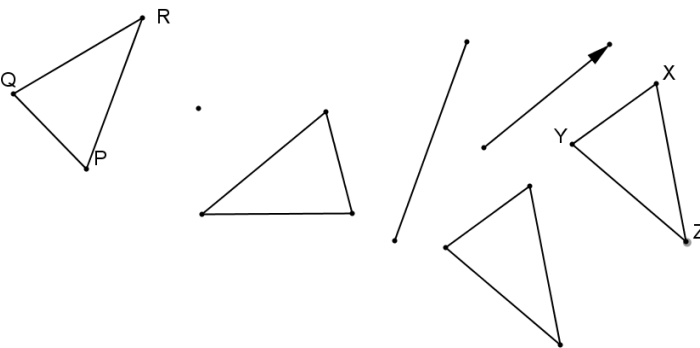
Description: _____

(b)



Description: _____

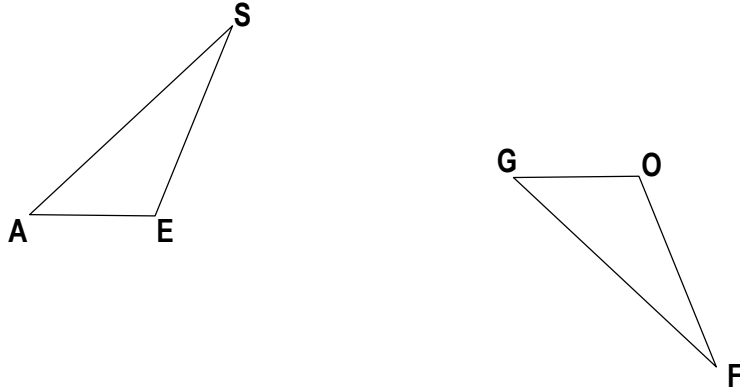
(c)



Description: _____

(3) **Describing a composition**

(a) Describe a composition of transformations that will map SEA to FOG, that means S has to map to F, E to O, and A to G. You may need to add lines for reflections, vectors for translations, or centers of rotation for rotations. Draw each intermediate step. Write the composition in function notation.



(4) **Performing compositions of transformations (continued)**

cont

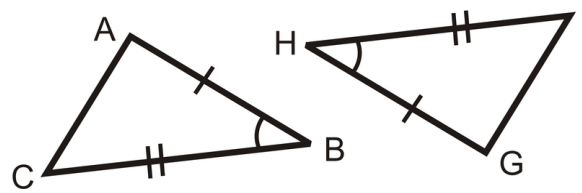
(b) Describe a composition of transformations that will map DANK to FUME, that means D has to map to _____. You may need to add lines for reflections, vectors for translations, or centers of rotation for rotations. Draw each intermediate step. Write the composition in function notation.



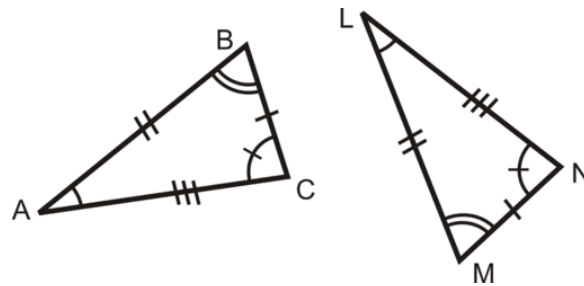
- (5) **Exit Ticket**
ON THE LAST PAGE

- (6) **Homework**
cont

(1) Describe a composition of transformations that will map ABC to GHI, that means A has to map to _____. You may need to add lines for reflections, vectors for translations, or centers of rotation for rotations. Draw each intermediate step.

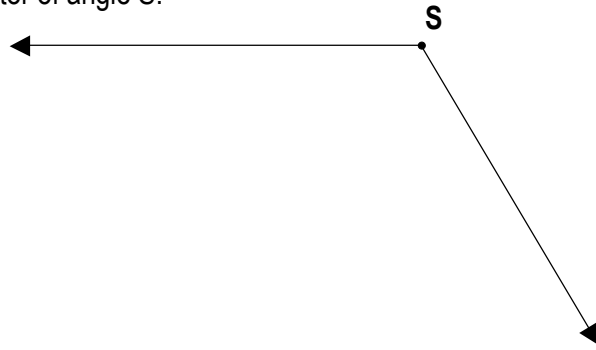


(2) Describe a composition of transformations that will map ABC to LMN, that means A has to map to _____. You may need to add lines for reflections, vectors for translations, or centers of rotation for rotations. Draw each intermediate step.

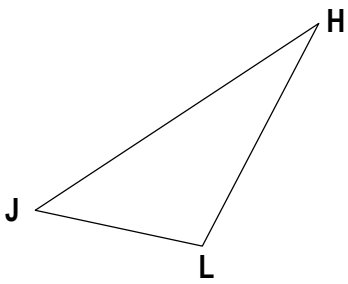


(9) **Homework**
compass

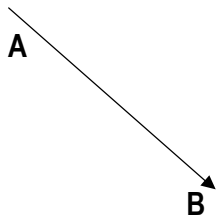
(3) Construct the bisector of angle S.



Construct OR use tracing paper to draw translate triangle HJL along vector AB and then rotate triangle H'J'L' 180° around point R.



R

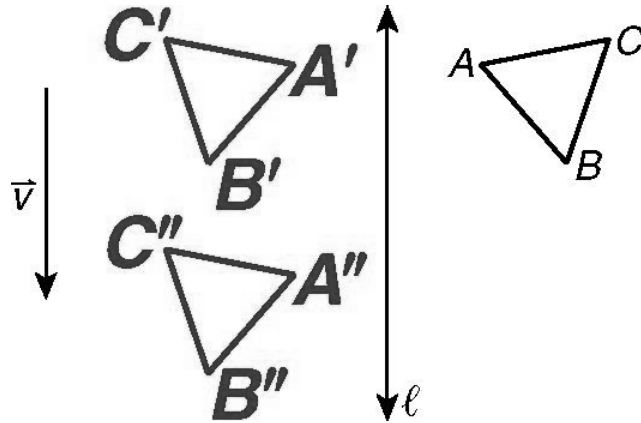


EXIT TICKET Name _____ Date _____ Per _____

10.1L

(1) The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

Describe the composition of transformations and write the transformation in function notation.



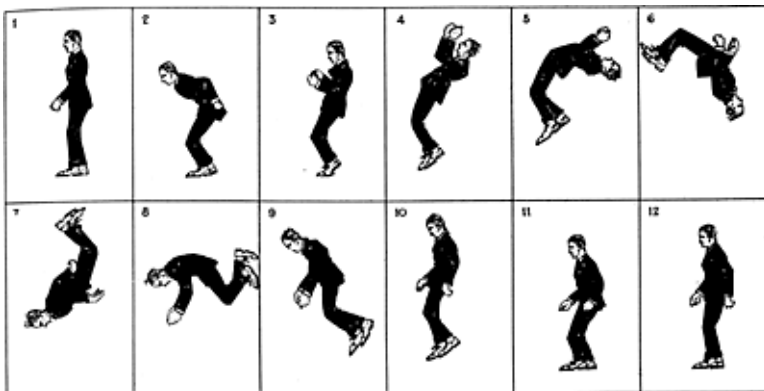
(1) Describe what each transformation function notation means:

(a) $T_{\overline{LM}}(\triangle HIJ)$

(b) $R_{A, -45^\circ}(\overline{CD})$

(c) $r_{\overline{ZY}}(U)$

(2) This is a series of pictures for a flipbook. Imagine you flip through the book. Describe what you would see -- where the person starts, what happens, and where the person ends.



To see a flipbook in action, go to <https://www.youtube.com/watch?v=ud8dSDy5IB4>

