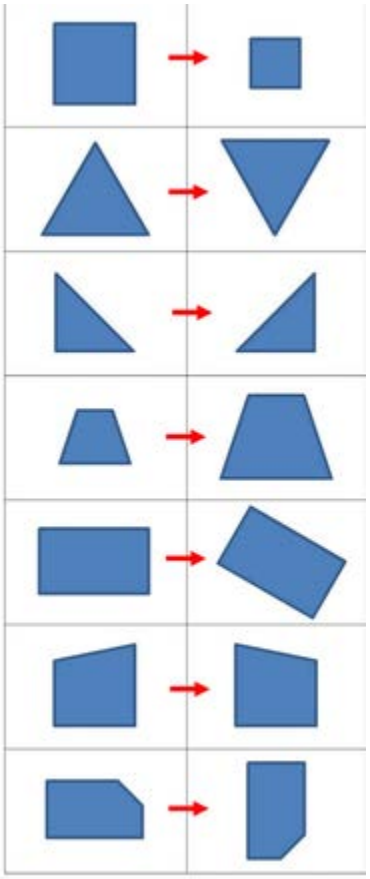
Geometry – Unit 2 Practice **Name: _____!**

Transformations Basics

G.CO.A.2 **Date: _____ Pd: ____**

1) Circle the word that describes how the 1st shape transforms to the 2nd shape.



Resized **Flipped** **Turned**

Resized **Flipped** **Turned**

Resized **Flipped** **Turned**

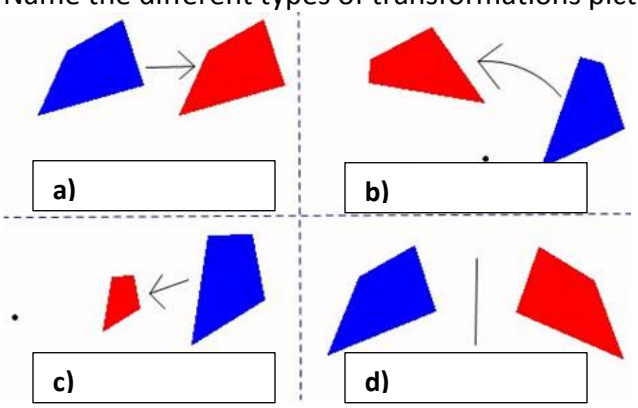
Resized **Flipped** **Turned**

Resized **Flipped** **Turned**

Resized **Flipped** **Turned**

Resized **Flipped** **Turned**

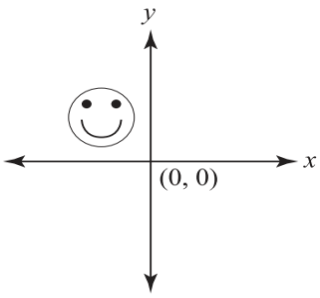
2) Name the different types of transformations pictured below.

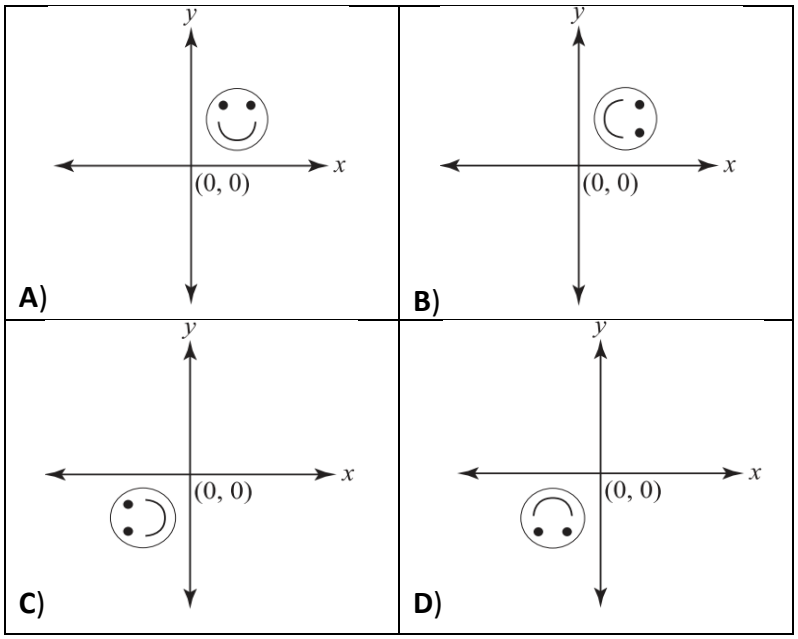


3) Explain how to tell which figure is the pre-image and which is the image.

4) How are dilations different from translations and reflections?

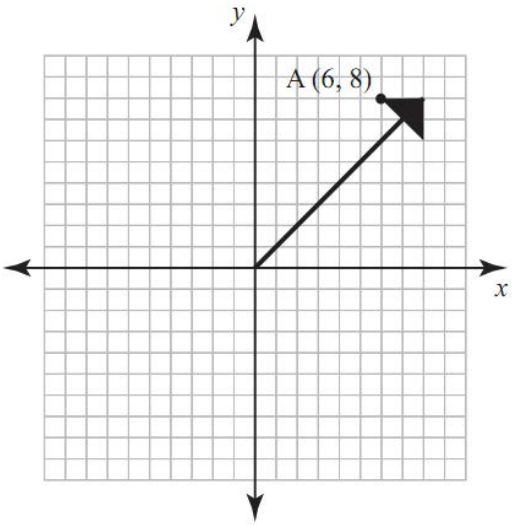
5) What would the figure at the right look like if it were reflected over the *x*-axis?



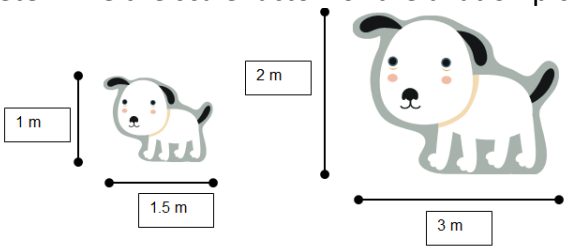


6) The arrow below represents the needle on a compass. The needle is rotated 180° in the clockwise direction. What are the coordinates of point *A* after the rotation?

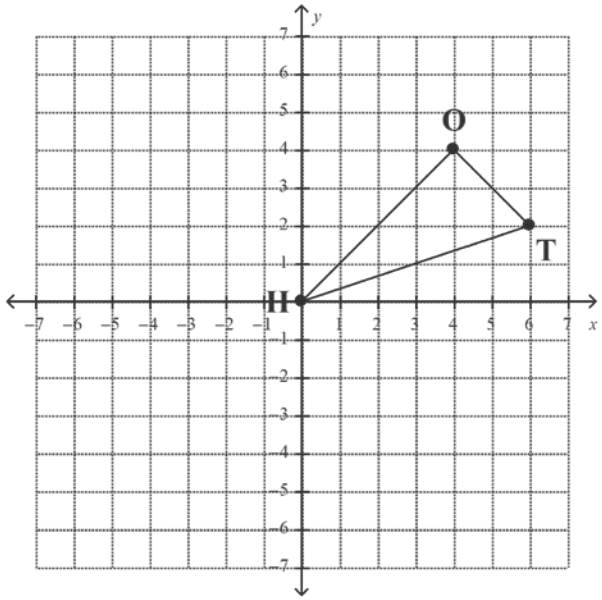
A) (–8, –6)
B) (–8, 6)
C) (–6, –8)
D) (6, –8)



7) Determine the scale factor for the dilation pictured below:



8) Draw the translation of the triangle *HOT* six units left and one unit down. Label the image *H'O'T'*. Is the image similar or congruent? How do you know?



9) For the coordinate (*x, y*), match the operation with the output:

a. Shift up 4 units; shift left 3 units	_____	(*x, -y*)
b. Rotate clockwise 90°	_____	(*-x, -y*)
c. Reflect over the x-axis	_____	(*x* + 4, *y* – 3)
d. Shift down 3 units; shift right 4 units	_____	(*x* - 3, *y* + 4)
e. Reflect over the y-axis	_____	(*y, -x*)
f. Reflect over the origin	_____	(*-x, y*)

(Hint: pick a random point and try each operation)