Name Key

Date _____

Geometry Review for Unit 1

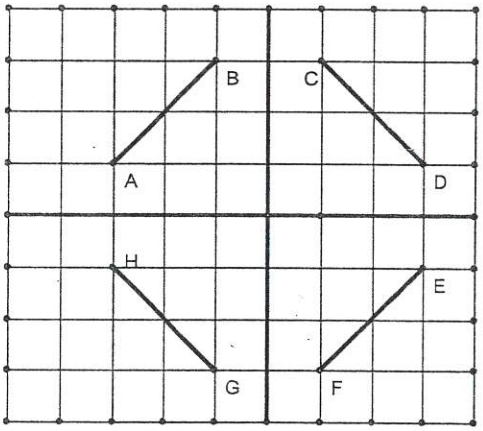
1. Reflections and Rotations

a. Which segment is the image of AB when it is reflected across the x-axis? HG

b. Which segment is the image of AB when it is rotated 180° around the origin? EF

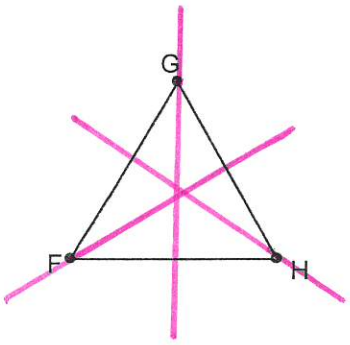
c. Which segment is the image of AB when it is reflected across y=x? FE

d. Which segment is the image of AB when it is reflected across the y-axis and then again across the x-axis? EF

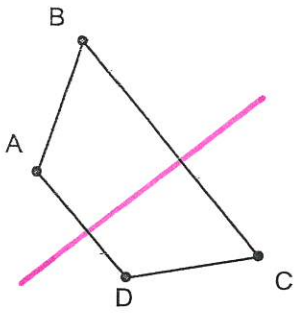


2. Reflections. Draw the lines of symmetry that will map each figure onto itself.

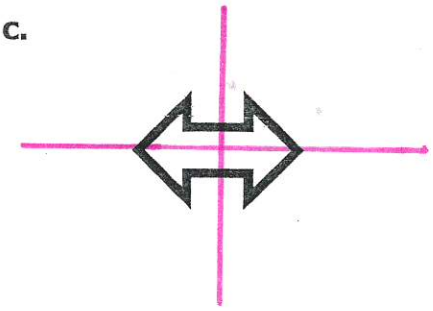
a.



b.

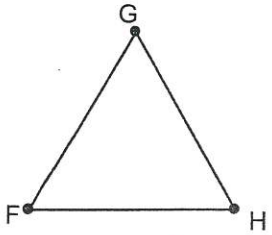


c.



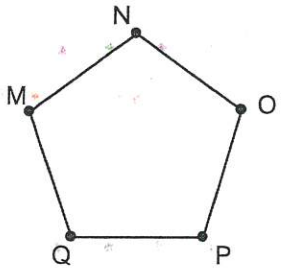
3. Rotations. For each of the following regular polygons, give the angle of rotation required to map the figure onto itself.

a.



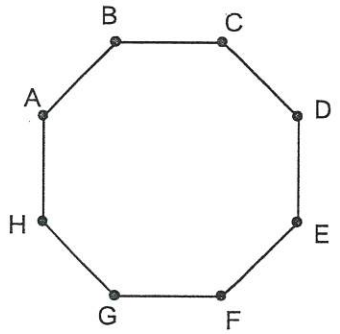
60°

b.



72°

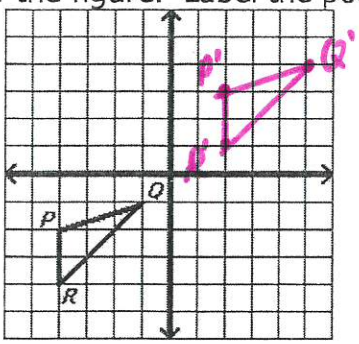
c.



45°

4. Draw the figure. Label the points of the image based on the labels of the pre-image.

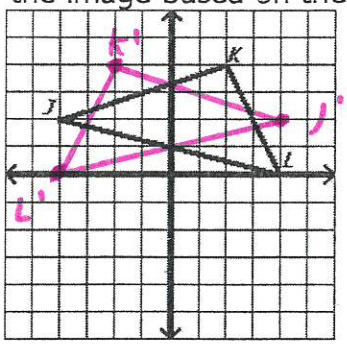
a.



Translate right 6, up 5

P′: (2, 3)
Q′: (5, 4)
R′: (2, 1)

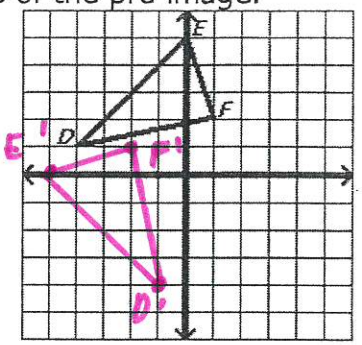
b.



Reflect across the y-axis

J′: (4, 2) K′: (-2, 4)
L′: (-4, 0)

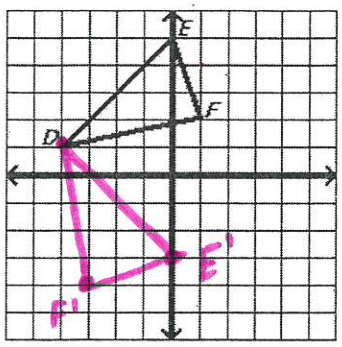
c.



Rotate 90° CCW around the origin

D′: (-1, -4) E′: (-5, 0)
F′: (-2, 1)

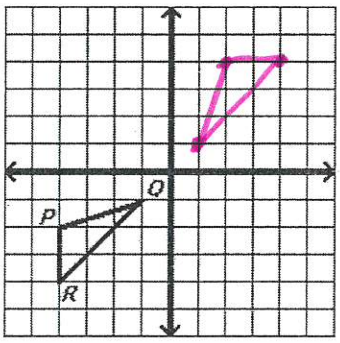
d.



Rotate 90° clockwise around *D*

D′: (0, 0)
E′: (0, -3)
F′: (-3, -4)

e.



Reflect across the line $y = -x$

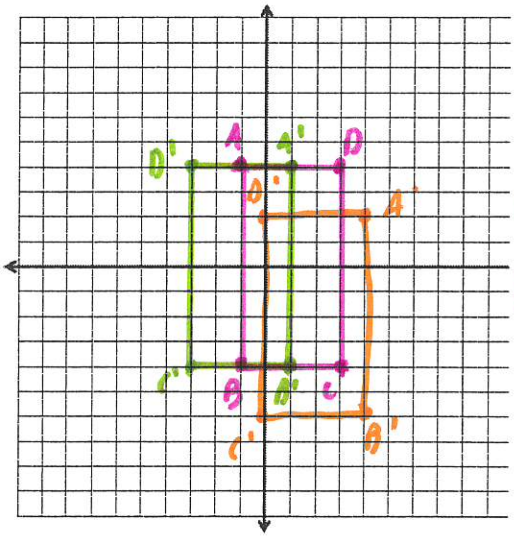
P′: (2, 4)
Q′: (1, 1)
R′: (4, 4)

7. Complete the rule for the given transformation:

1. Reflection over y=x
   (x,y)→ (y , x)
2. Rotation of 90^0 CCW
   (x,y)→ (-y , x)
3. Rotation of 90^0 CW
   (x,y)→ (y , -x)
4. Reflection over y= –x
   (x,y)→ (-y , -x)

8. Complete the following composition:
Reflection across y-axis; followed by a
Translation (x+3, y – 2)

A (-1,4)
B (-1,-4)
C (3,- 4)
D (3, 4)



A' (1, 4) A" (4, 2)
B' (1, -4) B" (4, -6)
C' (-3, -4) C" (0, -6)
D' (-3, 4) D" (0, 2)

Page 31 Do problems #2 and 3 (be sure to cover up the answers first). Review all problems on pages 20-31 for unit 1 as well as pages 33-40 (This covers dilations. The state has them in Unit 2, we are doing them in Unit 1.)