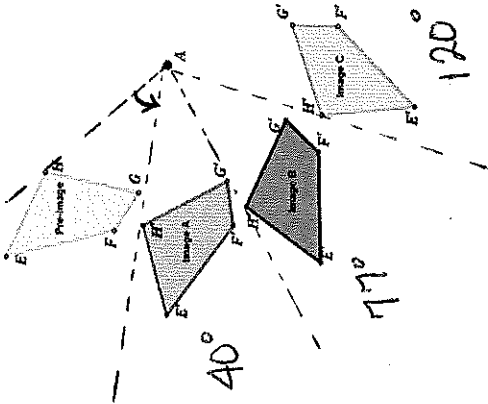


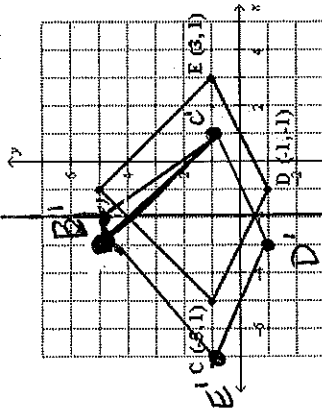
GSE Geometry Unit 1 Test (REVIEW)

Name: \_\_\_\_\_

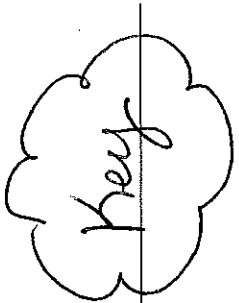
- 1) Find the angle of rotation for each of the following figures that have been rotated about point A:



- 2) Reflect Quadrilateral ABCD over the line  $x = -2$  and list the coordinates of the vertices  $A', B', C', D'$ .

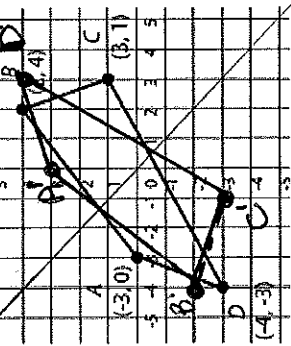


\*  $B'$  is  $(-3, 5)$



Name: \_\_\_\_\_

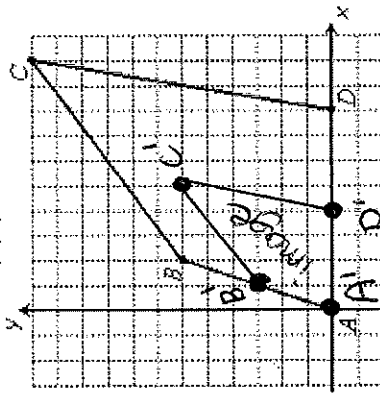
- 3) Reflect Quadrilateral ABCD over the line  $y = -x$  and list the coordinates of the vertices  $A', B', C', D'$ .



Reflect over  $y = -x$   
 $(x, y) \rightarrow (-y, -x)$

[i.e.  $A(-3, 0) \rightarrow A'(0, 3)$ ]

- 4) Dilate the following Quadrilateral ABCD by a scale factor of  $\frac{1}{2}$  from the origin. List the coordinates of the vertices  $A', B', C', D'$ .



$A(0, 0) \rightarrow A'(0, 0)$   
 $B(2, 6) \rightarrow B'(1, 3)$   
 $C(10, 12) \rightarrow C'(5, 6)$   
 $D(8, 0) \rightarrow D'(4, 0)$

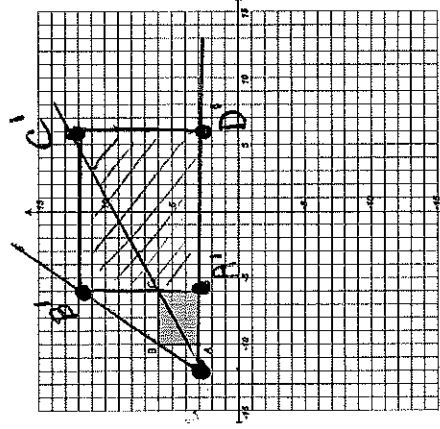
GSE Geometry Unit 1 Test (REVIEW)

Name: \_\_\_\_\_

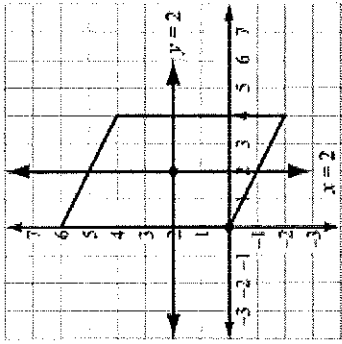
- 5) The point C is located at  $(9, -6)$  and  $C'$  is the image of C after being dilated by a scale factor of  $\frac{1}{3}$  from the origin. What are the coordinates of  $C'$ ?

$C'(3, -2)$

- 6) Dilate rectangle ABCD from the point  $(-12, 3)$  by a scale factor of 3. List the coordinates of the vertices  $A', B', C', D'$ .

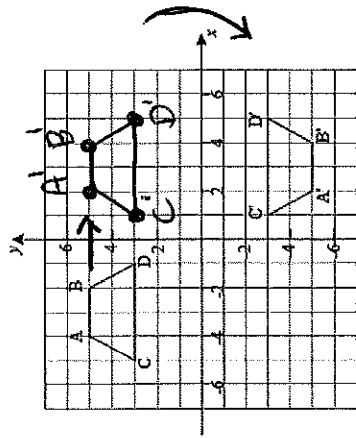


- 8) A parallelogram has vertices at  $(0, 0)$ ,  $(0, 6)$ ,  $(4, 4)$ , and  $(4, -2)$ . List all the transformations that map the parallelogram onto itself.



• Rotation using pt.  $(2, 2)$  as center  
 ... turn  $180^\circ$

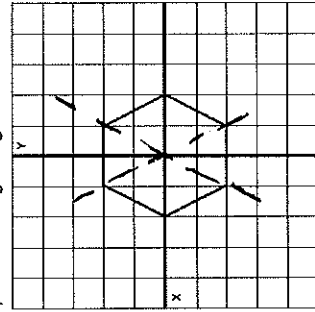
- 9) What sequence of transformations maps figure ABCD to  $A'B'C'D'$ ? Be careful, look at order of letters!



• Translate 6 right  
 $\angle 6, 0 \rangle$




- Reflect over  $x$ -axis
- Reflect over  $y$ -axis
- Reflect over diag. lines
- Rotate  $60^\circ, 120^\circ$ , etc.

- 7) The following hexagon is centered at the origin.



List ALL transformations that map the hexagon onto itself. (translation, reflection, etc.)

10) List the type(s) of symmetry the following figure has. Draw them to see.

- Horizontal 
- Vertical  { Only } (horiz.)
- Point (180°) 

11) List the type(s) of symmetry the following figure has:



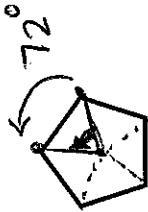
Only Vertical

12) List the type(s) of symmetry the following figure has:



Only Point

13) List the type(s) of symmetry the following figure has:



- 5 general lines of symmetry
- Rotate 72°, 144°, etc.

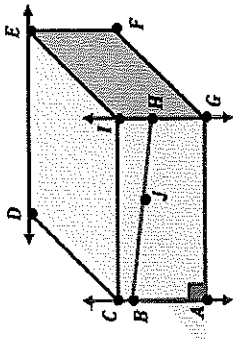
14) (True or False) Any 4 distinct points are always coplanar. True

False

15) (True or False) Any 2 distinct points are always collinear. True

True

Use the following figure to answer Questions 16-18.



16) How would you best describe the set of Point D, Point E, and Point F?

Coplanar (all on same plane in the back)

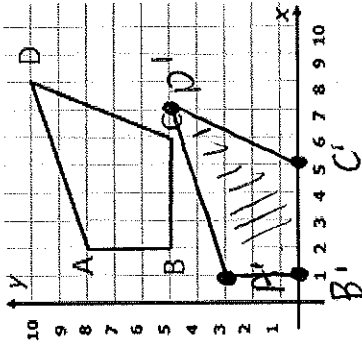
17) How would you best describe the set of Point H, Point J, and Point B?

collinear

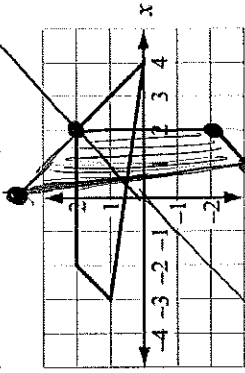
18) How would you best describe the relationship between the line DE and the line CF?

Parallel

19) Use the Translation  $(x,y) \rightarrow (x-1, y-5)$  each figure on the same graph provided for 19-20:



20) Reflection across the line  $y = x$ .



switch  $x \leftrightarrow y$  coordinates (when reflecting over  $y=x$ )