Name: _____ Period: _____ Alpha Geometry, Glawe

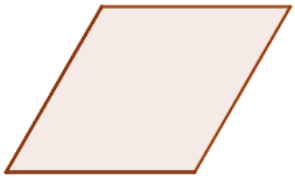
Transformations - Reflections

Draw lines of symmetry for each object. Each object may have one, two, three, or more lines of symmetry. If there are no lines of symmetry then write "NONE".

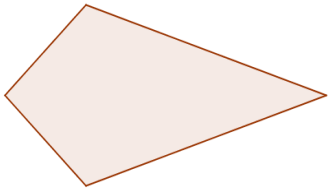
1) Square

2) Rectangle

3) Rhombus



4) Kite



5) Parallelogram

6) Isosceles Trapezoid

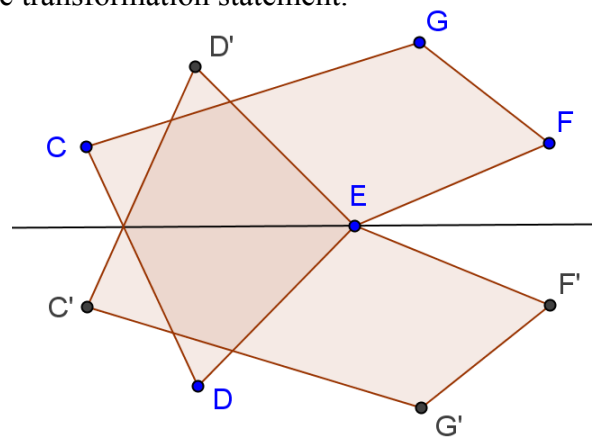
Use the diagram at the below to complete the transformation statement.

7) $\overline{GF} \rightarrow$ _____

8) $\measuredangle DCG \rightarrow$ _____

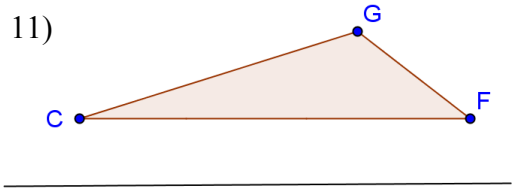
9) _____ $\rightarrow \overline{C'D'}$

10) E $\rightarrow$ _____

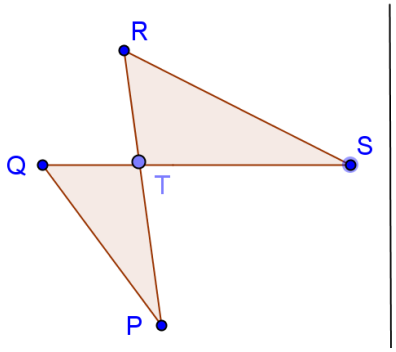


Construct the image given from the pre-image to the image over the line of reflection using a compass and straightedge. Label the new points with the appropriate notation.

11)



12)



Fill out the coordinate plane rules for reflections and use the rules to help you answer the following questions:

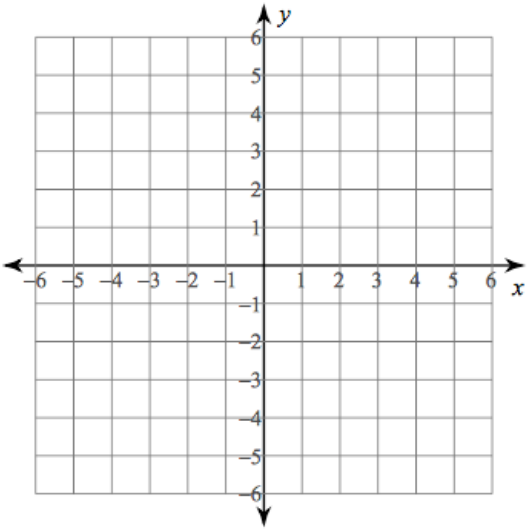
Coordinate plane rules:

Over the x-axis:	**(x, y) → (x, -y)**
Over the y-axis:	**(x, y) → (-x, y)**
Over the line y = x:	**(x, y) → (y, x)**
Through the origin:	**(x, y) → (-x, -y)**

Draw the figure on the coordinate plane and then reflect it with the given vertices across the given line. Label the new points with the appropriate notation.

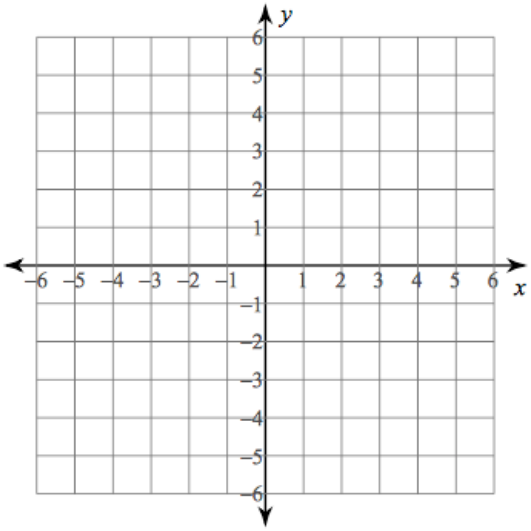
13) $A(4, 4)$, $B(3, -1)$, $C(1, -2)$; y-axis

A': _____ B': _____ C': _____



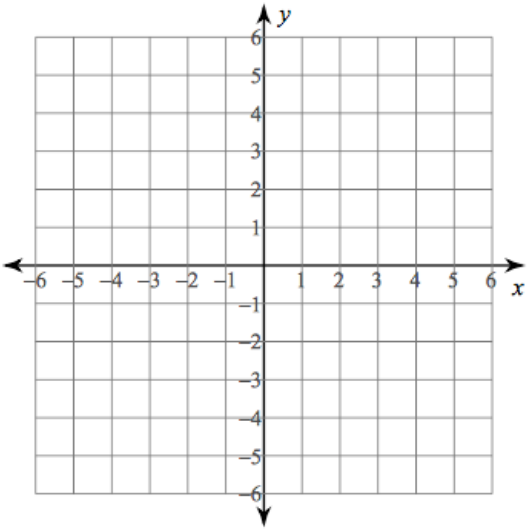
14) $D(-6,-1)$, $E(-2, 3)$, $F(-1, 1)$; y = x

D': _____ E': _____ F': _____



13) $P(1, 6)$, $Q(-4, 3)$, $R(-2, 1)$, $S(1, 0)$; x-axis

P': _____ Q': _____ R': _____ S': _____



14) $J(5,-4)$, $K(1, -1)$, $L(-1, -1)$, $M(-2, -4)$; y = x

J': _____ K': _____ L': _____ M': _____