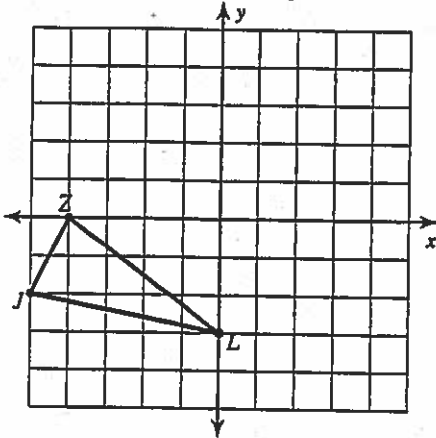


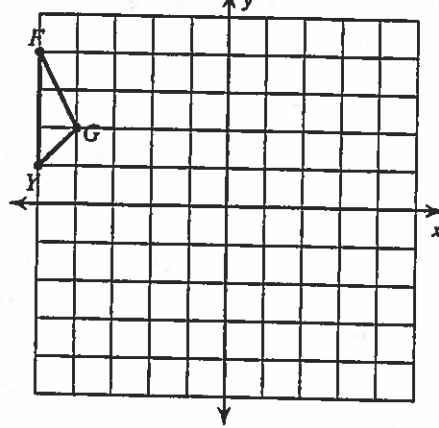
All Transformations

Graph the image of the figure using the transformation given.

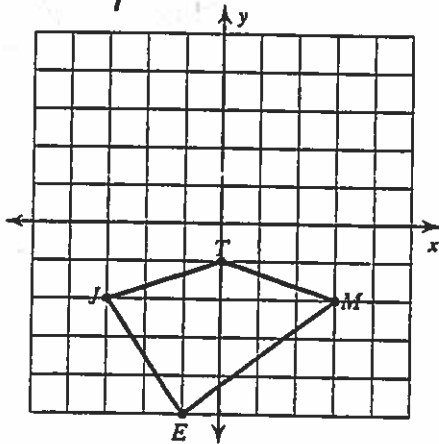
1)  $R_{90^\circ}(x, y) \rightarrow (-y, x)$



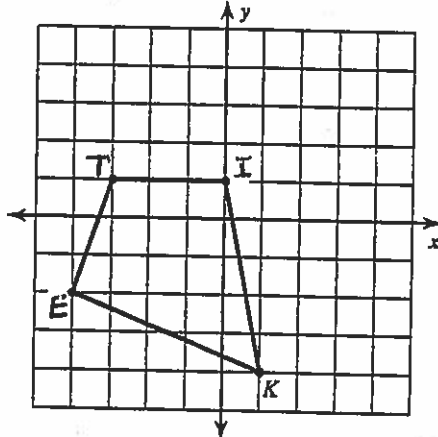
2)  $T(x, y) \rightarrow (x+5, y-3)$



3)  $R_{y=-1}$

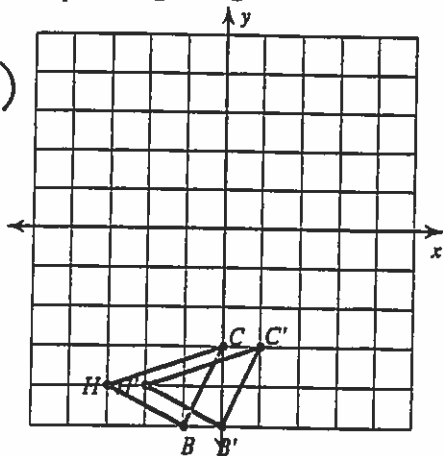


4)  $R_0(x, y) \rightarrow (-x, -y)$

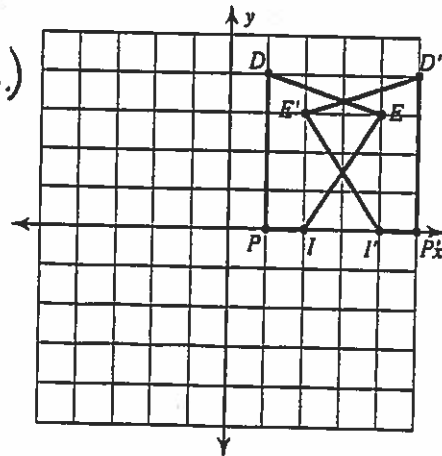


Identify and write the rule in function notation for 5-8. If it's a reflection, draw the line of reflection too.

5.)

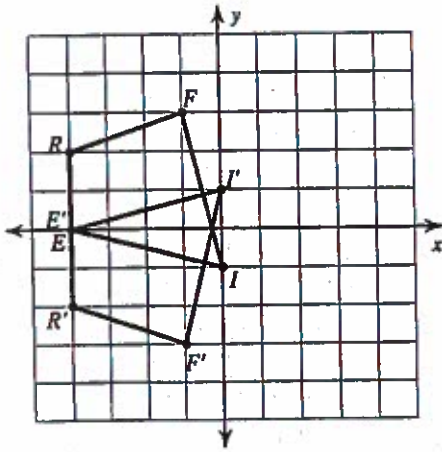


6.)

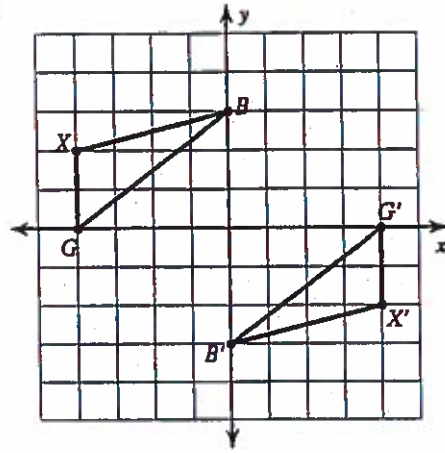


→  
\* Same directions on back for 7+8 \*

7)



8)

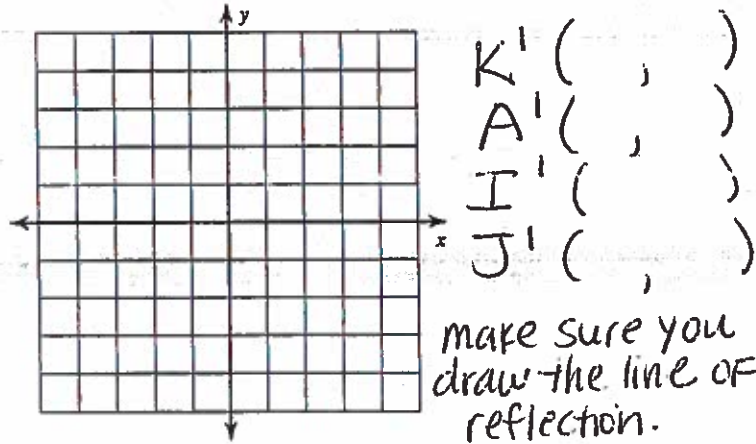
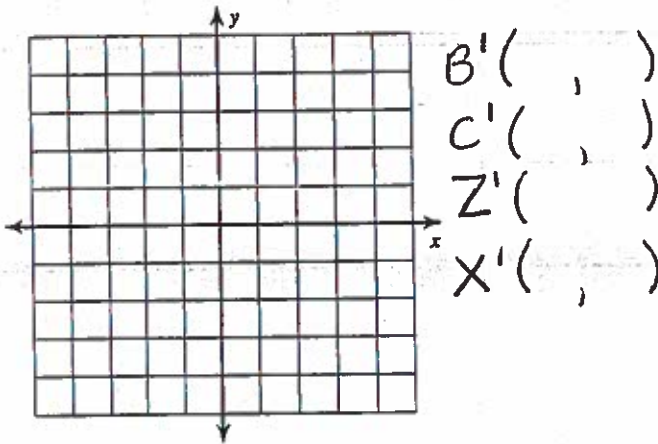


9+10) Graph the pre-image

and the image of the figure using the transformation given. *Be Neat!*

9) Rotate  $270^\circ$  about the origin  
 $B(-2, 0), C(-4, 3), Z(-3, 4), X(-1, 4)$

10) reflection across  $y = x$   
 $K(-5, -2), A(-4, 1), I(0, -1), J(-2, -4)$



Use your short-cut rules if possible

Find the coordinates of the vertices of each figure after the given transformation.

11) Rotate  $180^\circ$   
 $E(2, -2), J(1, 2), R(3, 3), S(5, 2)$

12)  $R_{y\text{-axis}}$   
 $J(1, 3), U(0, 5), R(1, 5), C(3, 2)$

$E'( , ) J'( , ) R'( , ) S'( , ) J'( , ) U'( , ) R'( , ) C'( , )$

13)  $T(x, y) \rightarrow (x+7, y-1)$   
 $J(-3, 1), F(-2, 3), N(-2, 0)$

14)  $\boxed{1^{st}: T(x-3, y+2) \mid 2^{nd}: R_{x\text{-axis}}}$   
 $S(-3, 3), C(-1, 4), W(-2, -1)$

$J'( , ) F'( , ) N'( , )$   
 $1^{st} \rightarrow S'( , ) C'( , ) W'( , )$   
 $2^{nd} \rightarrow S''( , ) C''( , ) W''( , )$