

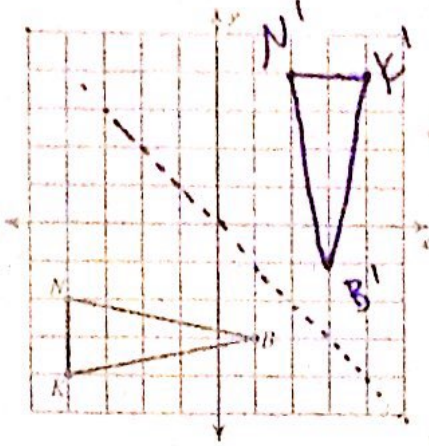
Key

Date \_\_\_\_\_

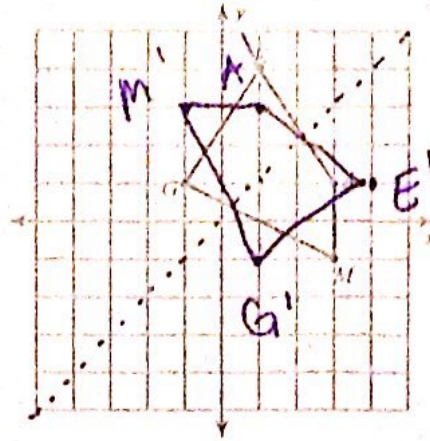
Period \_\_\_\_\_

Graph the image of the figure using the transformation given.

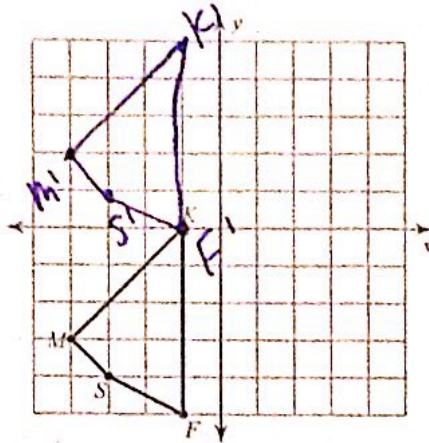
1) reflection across  $y = -x$



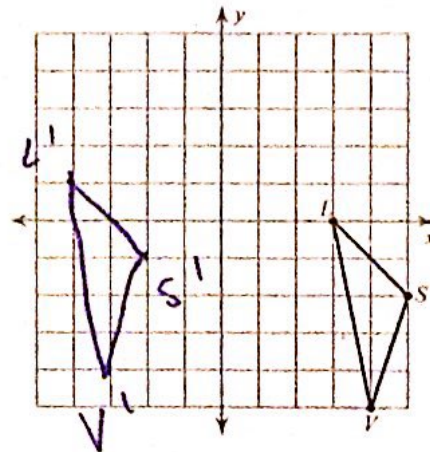
2) reflection across  $y = x$



3) translation:  $(x, y) \rightarrow (x, y + 5)$

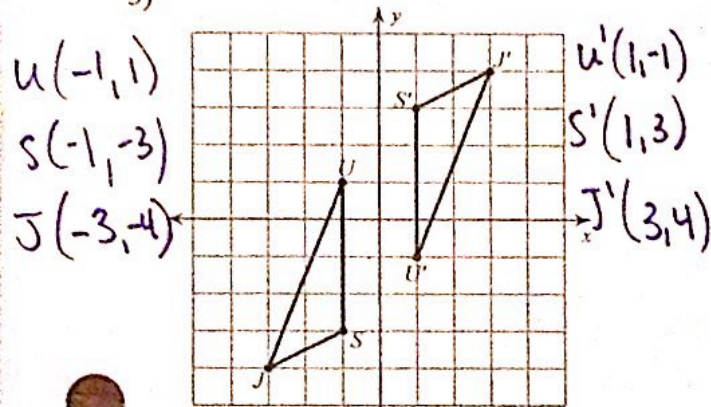


4) translation:  $(x, y) \rightarrow (x - 7, y + 1)$



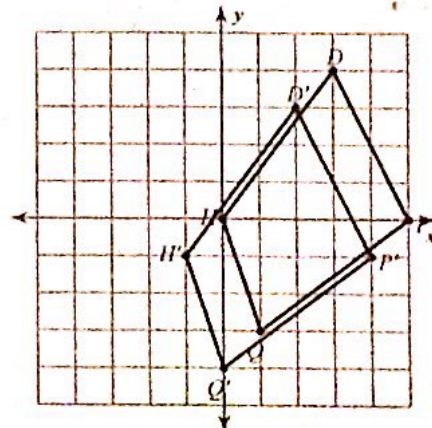
Write a rule to describe each transformation.

5)



rule  $(x, y) \rightarrow (-x, -y)$

6)



rule  $(x, y) \rightarrow (x-1, y-1)$

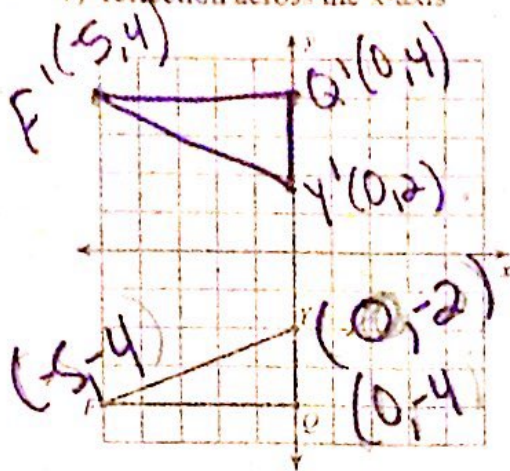


For problems 7-10

a) Graph the image of the figure using the transformation given.

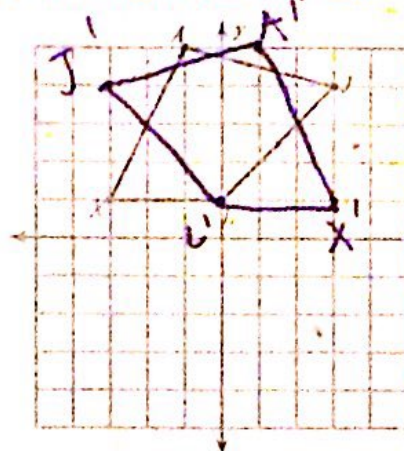
b) Write a rule for any transformation across this line.

7) reflection across the x-axis



rule:  $(x, y) \rightarrow (x, -y)$

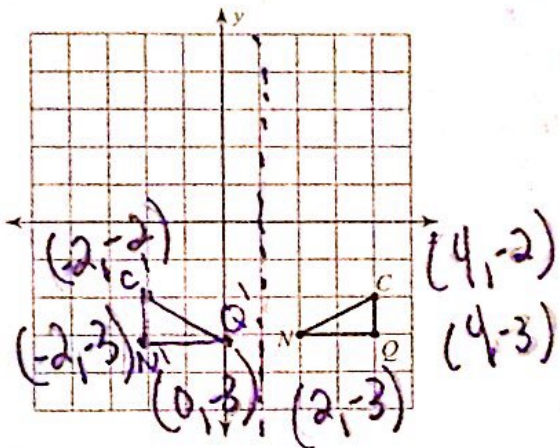
8) reflection across the y-axis



$A(-1, 5)$   $A'(1, 5)$   
 $J(3, 4)$   $J'(-3, 4)$   
 $L(0, 1)$   $L'(0, 1)$   
 $X(-3, 1)$   $X'(3, 1)$

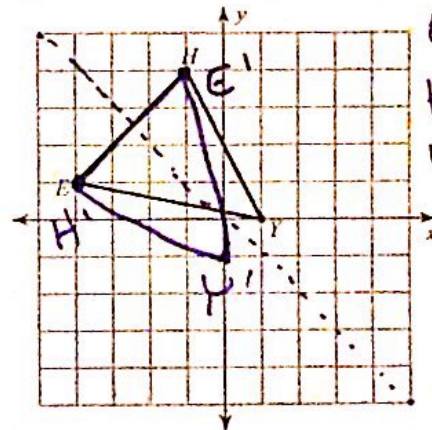
rule  $(x, y) \rightarrow (-x, y)$

9) reflection across  $x = 1$



rule  $(x, y) \rightarrow (x+2, y)$

10) reflection across  $y = -x$



$E(-4, 1)$   $E'(-1, 4)$   
 $H(-1, 4)$   $H'(-4, 1)$   
 $Y(1, 0)$   $Y'(0, -1)$

rule  $(x, y) \rightarrow (-y, -x)$