Geometry HW #_____ Name_____

Mappings and Reflections

14-1 and 14-2 Per_____ Col_____ Date_____

For # 1-4, use the transformation $T: (x, y) \rightarrow (x + 1, y - 2)$.

Give the coordinates of the image point.

1. $A(3, 2)$, $A' =$

2. $B(-1, 4)$, $B' =$

3. Find the preimage of $(-3, 1)$.

4. Find the preimage of $(5, -2)$.

For #5-8, use the transformation $S: (x, y) \rightarrow (2x - 1, -y)$.

Give the coordinates of the image point.

5. $E(3, 2)$, $E' =$

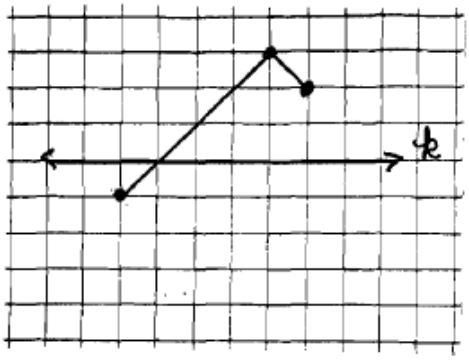
6. $G(3, 2)$, $G' =$

7. Find the preimage of $(1, -8)$.

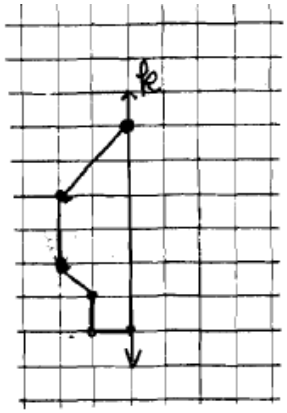
8. Find the preimage of $(-3, 5)$.

Draw the image of each figure under reflection in line k.

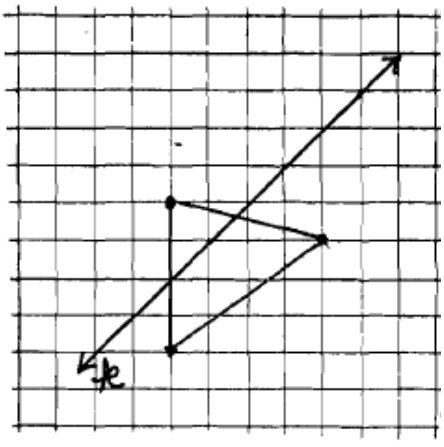
9.



10.

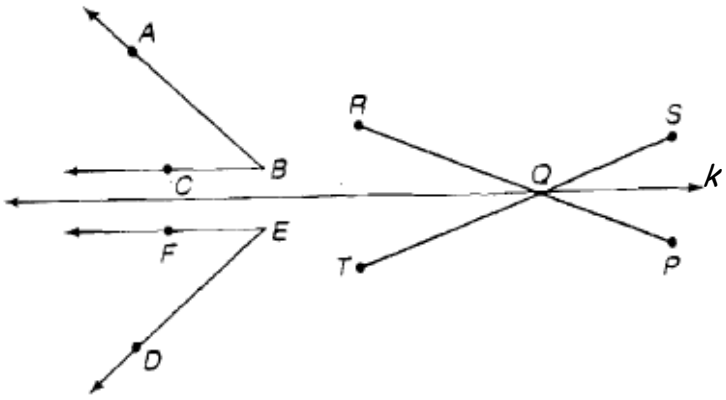


11.



12. Name the reflection image in line k for each of the following:

a. C b. $\overline{PR}$



13. Name the preimage of each of the following before reflection in line k.

a. $\overline{DE}$ b. $\angle RQS$

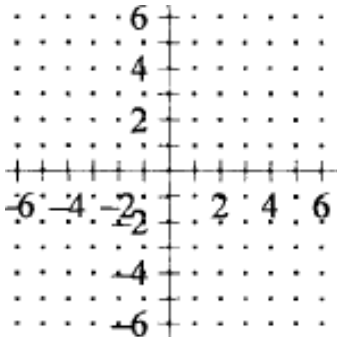
Graph and label each figure. Then draw and label its reflection image. List the coordinates of the image points.

14. ΔABC with $A(-5, -1)$, $B(0, 2)$, and $C(3, 1)$ is reflected in the y-axis.

$A' =$

$B' =$

$C' =$



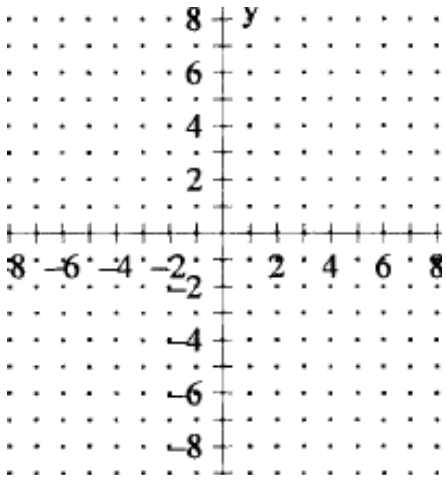
15. Trapezoid $HJKL$ with $H(2, 2)$, $J(2, -1)$, $K(-1, -2)$, and $L(-1, 3)$ is reflected in the horizontal line $y = 3$.

$H' =$

$J' =$

$K' =$

$L' =$



16. $\overline{RS}$ with $R(4, -3)$ and $S(6, 0)$ is reflected in the line $y = x$.

$R' =$

$S' =$