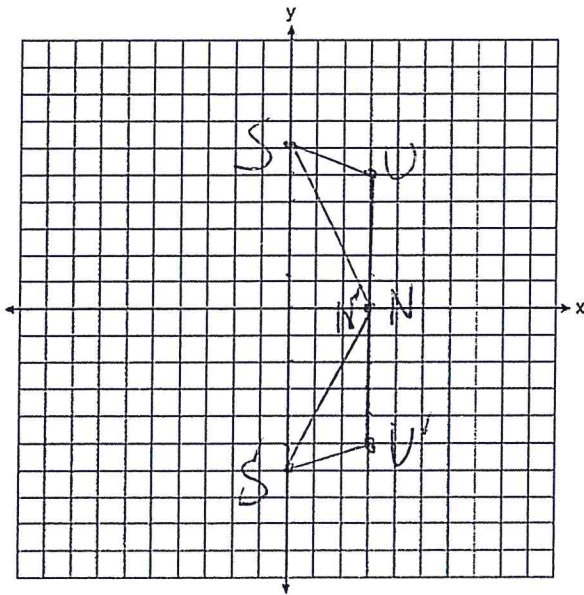


Name Schlansky
Mr. Schlansky

Date _____
Geometry

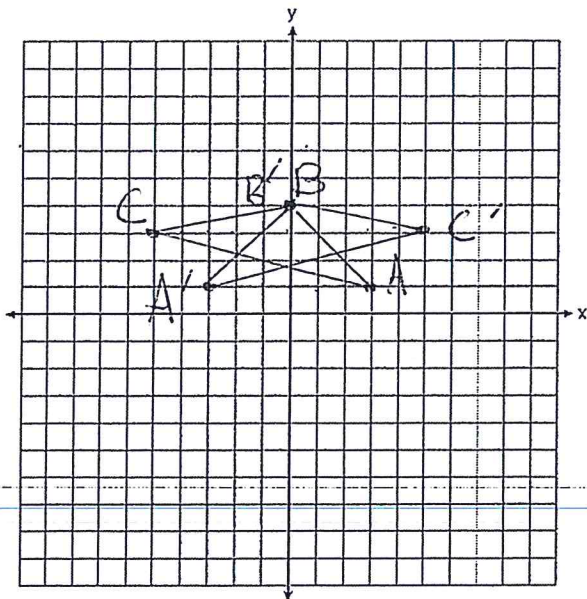
Reflections

1. Triangle SUN has coordinates $S(0,6)$, $U(3,5)$, and $N(3,0)$. On the accompanying grid, draw and label $\triangle SUN$. Then, graph and state the coordinates of $\triangle S'U'N'$, the image of $\triangle SUN$ after a reflection over the x axis.

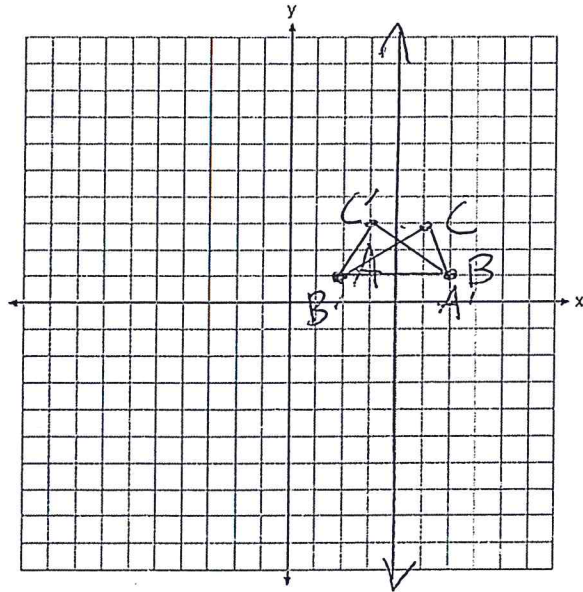


$S'(0,-6)$
 $U'(3,-5)$
 $N'(3,0)$ (invariant)

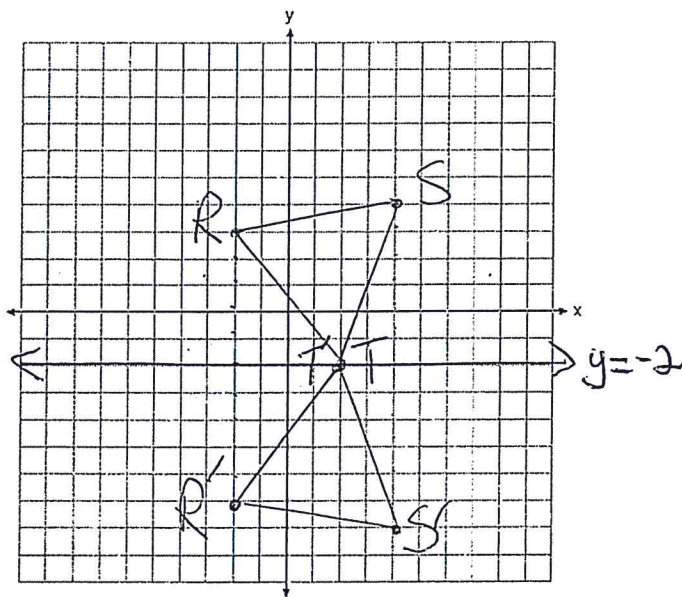
2. On the grid below, graph and label triangle ABC with vertices $A(3,1)$, $B(0,4)$, and $C(-5,3)$. On the same grid, graph and label triangle $A'B'C'$, the image of ABC after a reflection over the y axis.



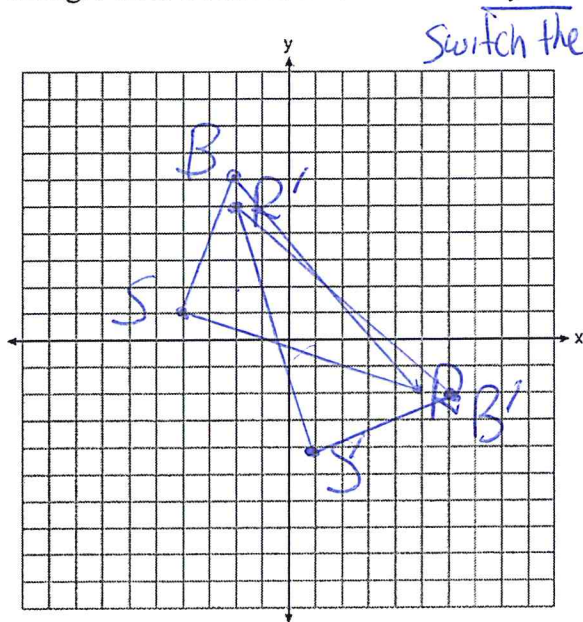
3. Triangle ABC has coordinates $A(2, 1)$, $B(6, 1)$, $C(5, 3)$. What is the image of this triangle after a reflection over the line $x = 4$. Graph both the image and the pre image.



4. The coordinates of the vertices of $\triangle RST$ are $R(-2, 3)$, $S(4, 4)$, and $T(2, -2)$. Graph $\triangle RST$. Graph and label $\triangle R'S'T'$, the image of $\triangle RST$ after a reflection over the line $y = -2$.



5. Triangle SBR has coordinates $S(-4,1)$, $B(-2,6)$, and $R(5,-2)$. What is the image of this triangle after a reflection over the line $y = x$? Graph both the image and the pre image.

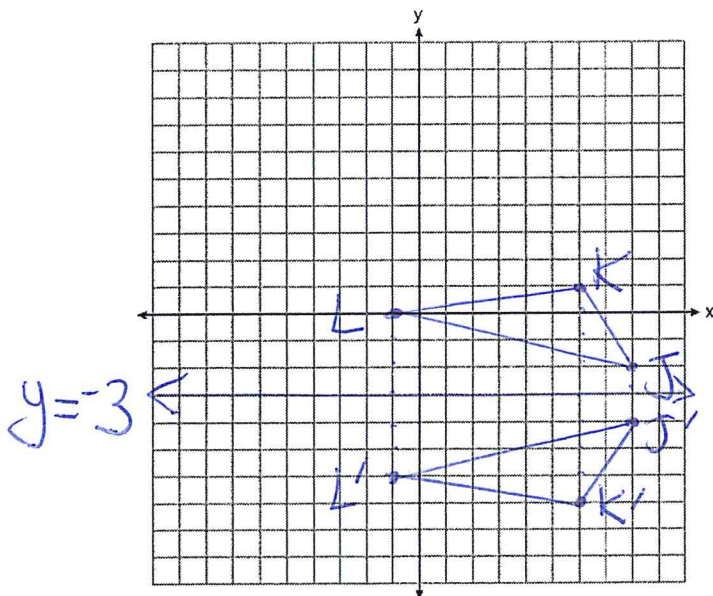


$$S(-4,1) \rightarrow (1,-4)$$

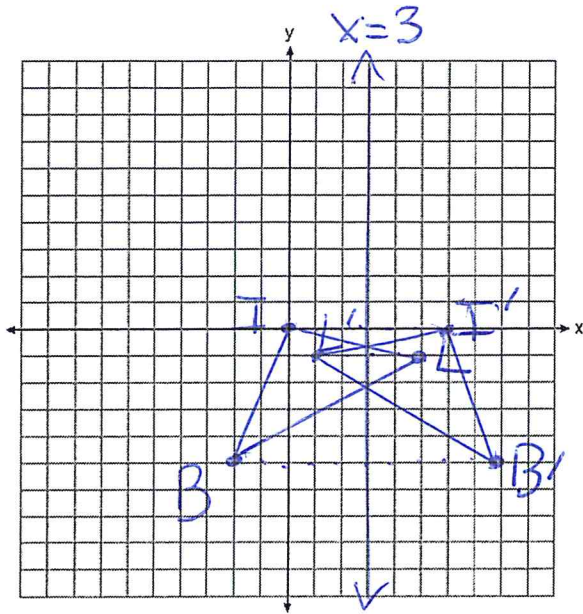
$$B(-2,6) \rightarrow (6,-2)$$

$$R(5,-2) \rightarrow (-2,5)$$

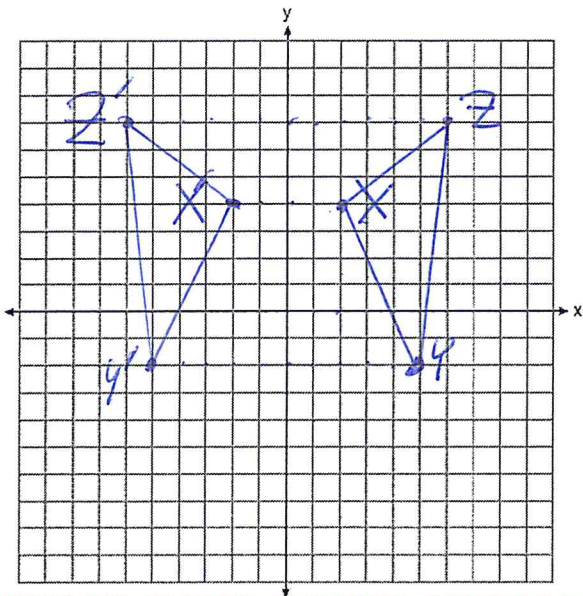
6. The coordinates of the vertices of ΔJKL are $J(8,-2)$, $K(6,1)$, and $L(-1,0)$. Graph ΔJKL . Graph and label $\Delta J'K'L'$, the image of ΔJKL after a reflection over the line $y = -3$.



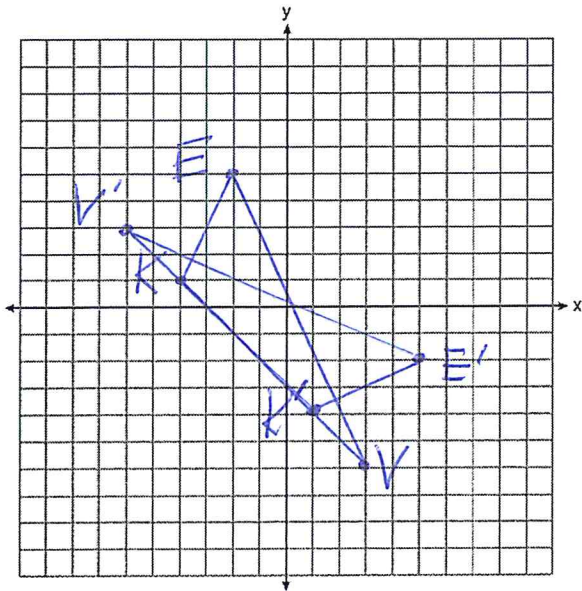
7. Triangle BIL has coordinates $B(-2, -5)$, $I(0, 0)$, and $L(5, -1)$. What is the image of this triangle after a reflection over the line $x = 3$? Graph both the image and the pre image.



8. The coordinates of the vertices of $\triangle XYZ$ are $X(2, 4)$, $Y(5, -2)$, and $Z(6, 7)$. Graph $\triangle XYZ$. Graph and label $\triangle X'Y'Z'$, the image of $\triangle XYZ$ after a reflection over the y axis.



9. Triangle KEV has coordinates $K(-4,1)$, $E(-2,5)$, and $V(3,-6)$. What is the image of this triangle after a reflection over the line $y = x$? Graph both the image and the pre image.

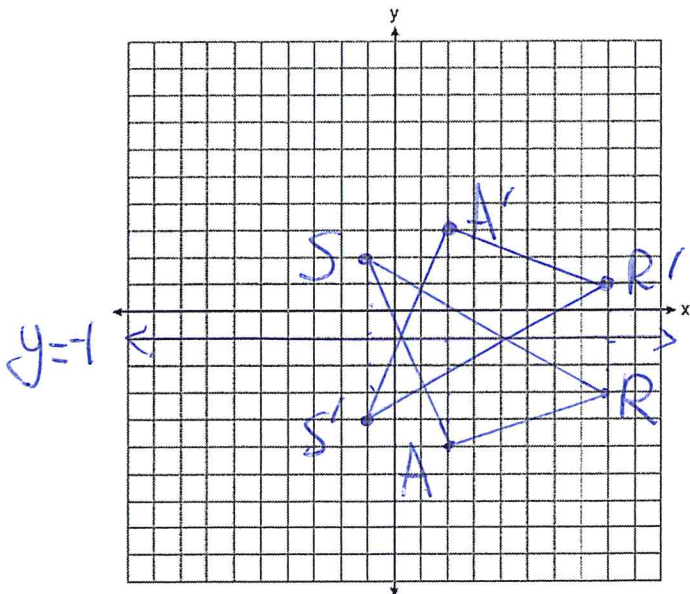


$$K(-4,1) \rightarrow (1,-4)$$

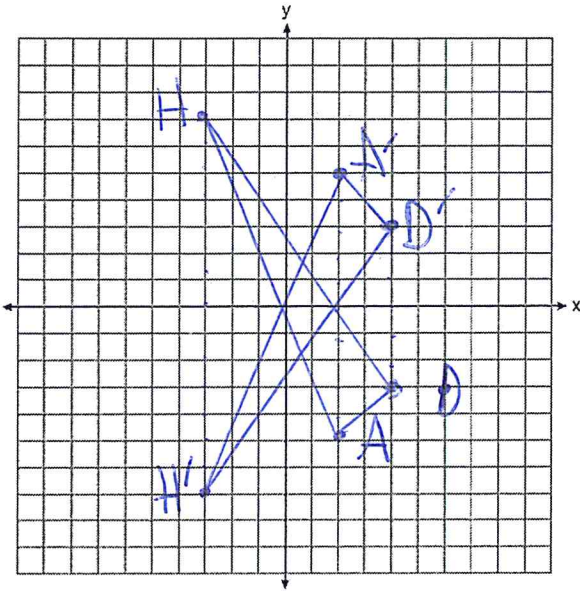
$$E(-2,5) \rightarrow (5,-2)$$

$$V(3,-6) \rightarrow (-6,3)$$

10. The coordinates of the vertices of $\triangle RAS$ are $R(8,-3)$, $A(2,-5)$, and $S(-1,2)$. Graph $\triangle RAS$. Graph and label $\triangle R'A'S'$, the image of $\triangle RAS$ after a reflection over $y = -1$.



11. Triangle DAH has coordinates $D(4, -3)$, $A(2, -5)$, and $H(-3, 7)$. What is the image of this triangle after a reflection over the x -axis? Graph both the image and the pre image.



12. The coordinates of the vertices of $\triangle DYL$ are $D(-5, -2)$, $Y(-2, 8)$, and $L(3, 6)$. Graph and label $\triangle D'Y'L'$, the image of $\triangle DYL$ after a reflection over $x = -2$.

