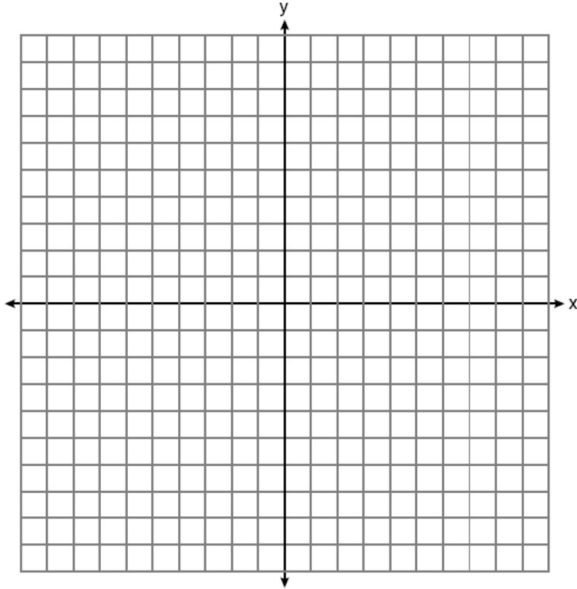Name _____

Mr. Schlansky

Date _____

Geometry
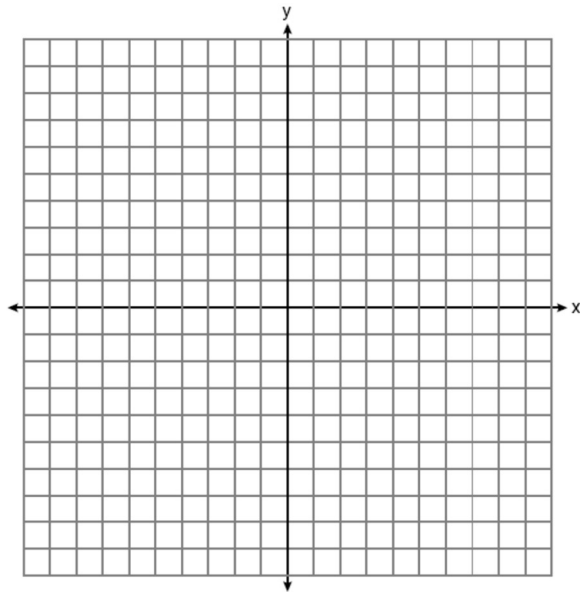
Line Reflections

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


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.
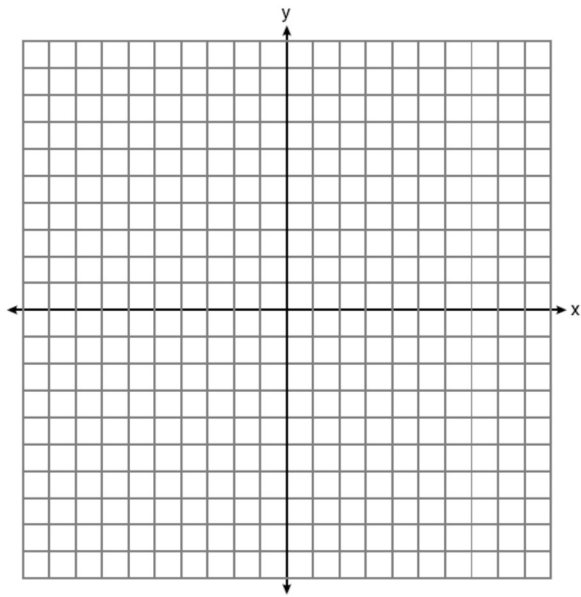
3. Triangle ABC has coordinates $A(2, 1)$, $B(6,1)$, $C(5,3)$. What is the image of this triangle after a reflection over the line $x = 4$. Graph both the image and the pre image.
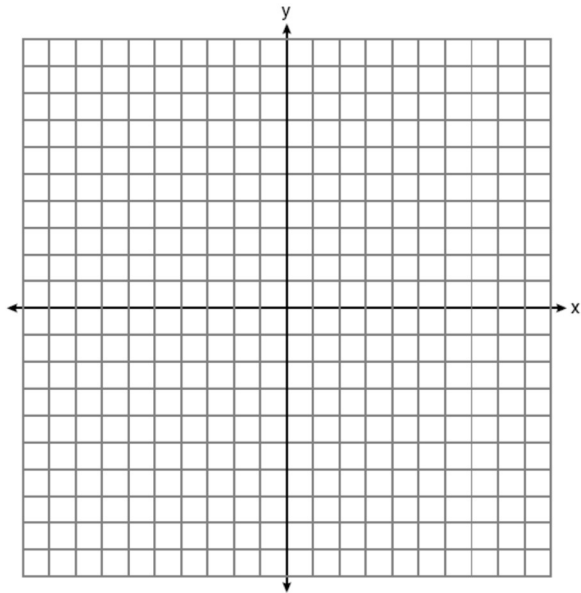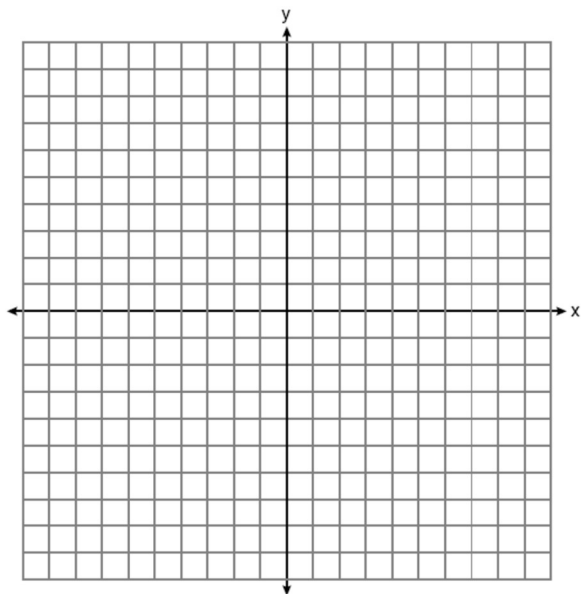
4. The coordinates of the vertices of $\triangle RST$ are $R(-2, 3)$, $S(4,4)$, and $T(2,-2)$. Graph $\triangle RST$. Graph and label $\triangle R'S'T'$, the image of $\triangle RST$ after a reflection over the line $y = -2$.
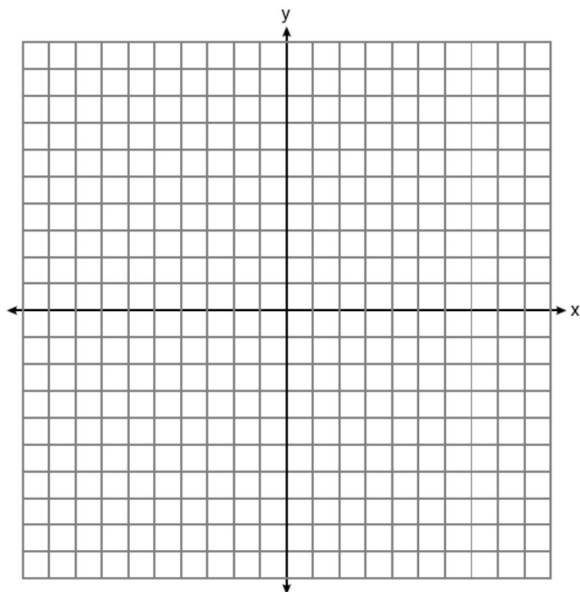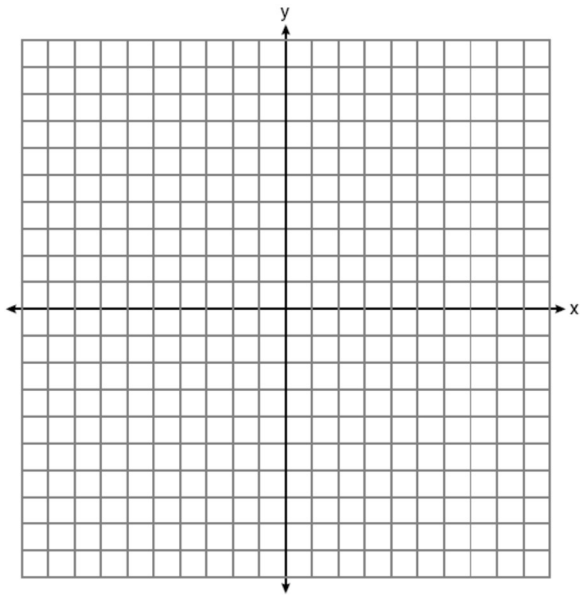
5. The coordinates of the vertices of $\triangle JKL$ are $J(8,-2)$, $K(6,1)$, and $L(-1,0)$. Graph $\triangle JKL$.
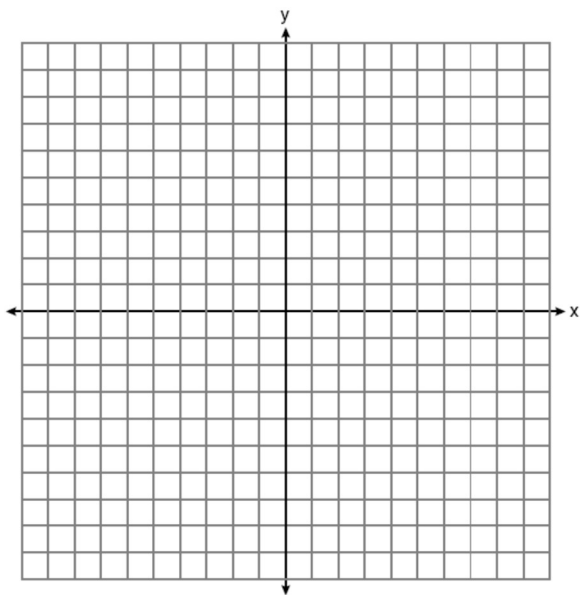Graph and label $\triangle J'K'L'$, the image of $\triangle JKL$ after a reflection over the line $y=-3$.

6. Triangle BIL has coordinates $B(-2,-5)$, $I(0,0)$, and $L(-5,-3)$. What is the image of this triangle after a reflection over the line $x=3$? Graph both the image and the pre image.
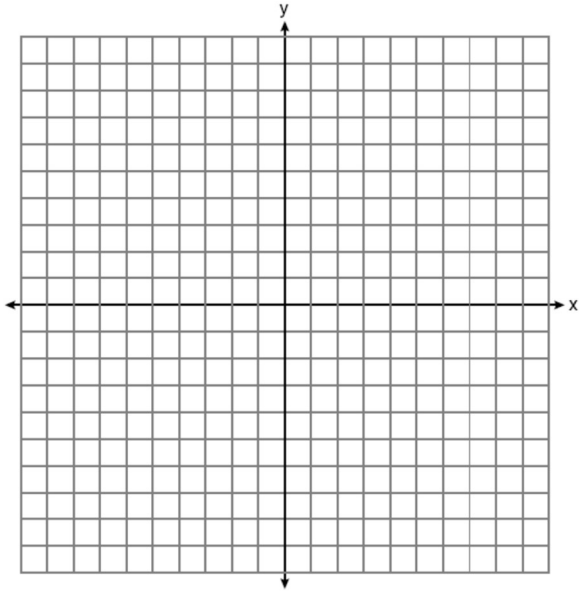
7. The coordinates of the vertices of $\triangle XYZ$ are $X(2,4)$, $Y(5,-2)$, and $Z(6,7)$. Graph $\triangle XYZ$. Graph and label $\triangle X'Y'Z'$, the image of $\triangle XYZ$ after a reflection over the y axis.

8. 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 $y=-1$.
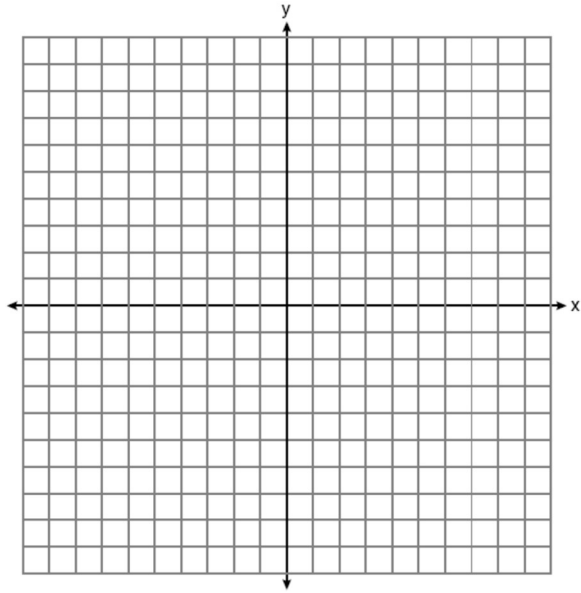
9. Triangle DAH has coordinates $D(4,-3)$, $A(2,-5)$, and $H(-3,7)$. What is the image of this triangle after a reflection over the $x-axis$? Graph both the image and the pre image.

10. The coordinates of the vertices of ΔDYL are $D(-5,-2)$, $Y(-2,8)$, and $L(3,6)$. Graph and label $\Delta D'Y'L'$, the image of ΔDYL after a reflection over $x=-2$.
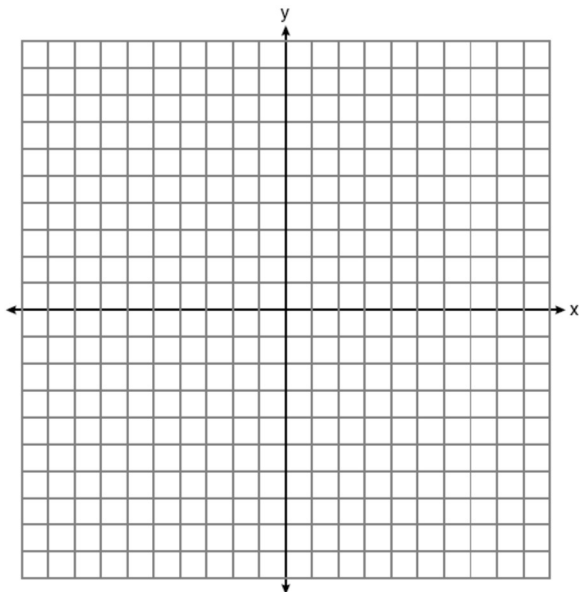
11. Triangle SBR has coordinates $S(-4,1)$, $B(-2,6)$, and $R(5,-2)$. What is the image of this triangle after a reflection over the line $y = x$? Graph both the image and the pre image.

12. 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.