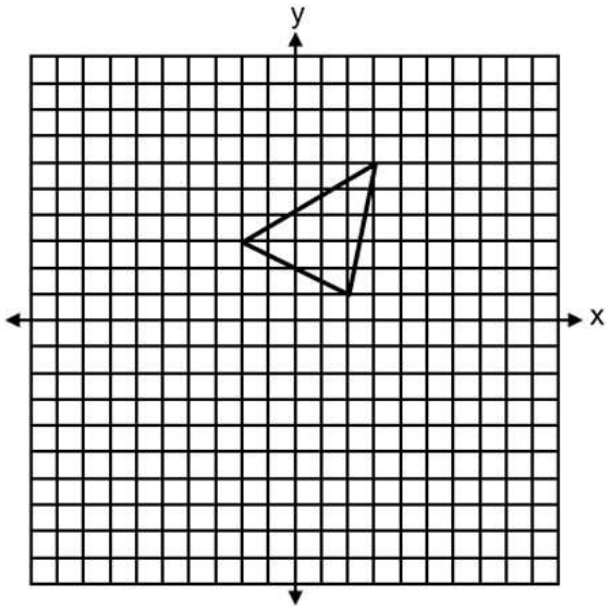


Name _____
Mr. Schlansky

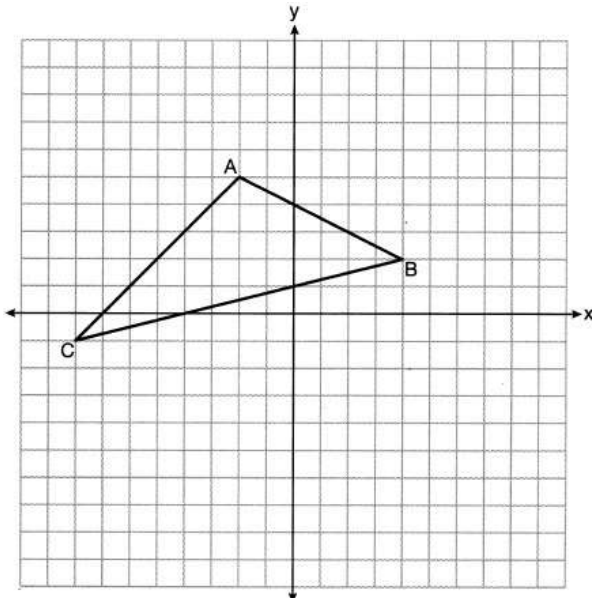
Date _____
Geometry

Performing Vertical/Horizontal Stretches

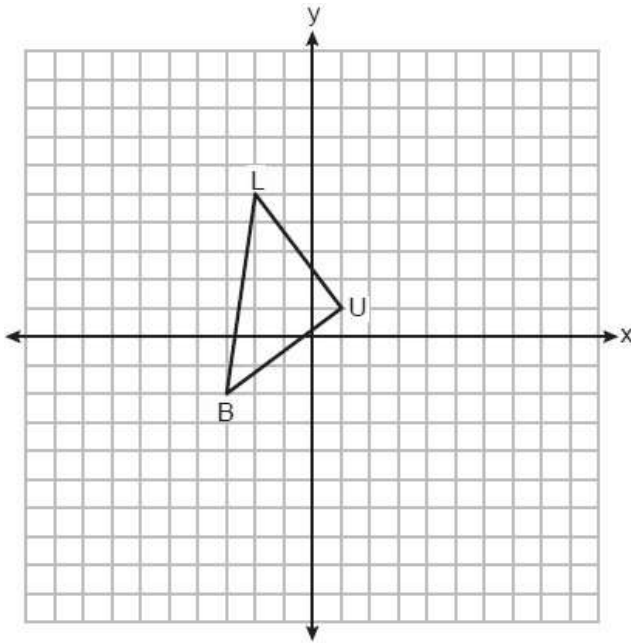
1. A triangle with vertices at $(-2,3)$, $(3,6)$, and $(2,1)$, is graphed on the set of axes below. A horizontal stretch of scale factor 2 with respect to $x = 0$ is represented by $(x, y) \rightarrow (2x, y)$. Graph the image of this triangle, after the horizontal stretch on the same set of axes.



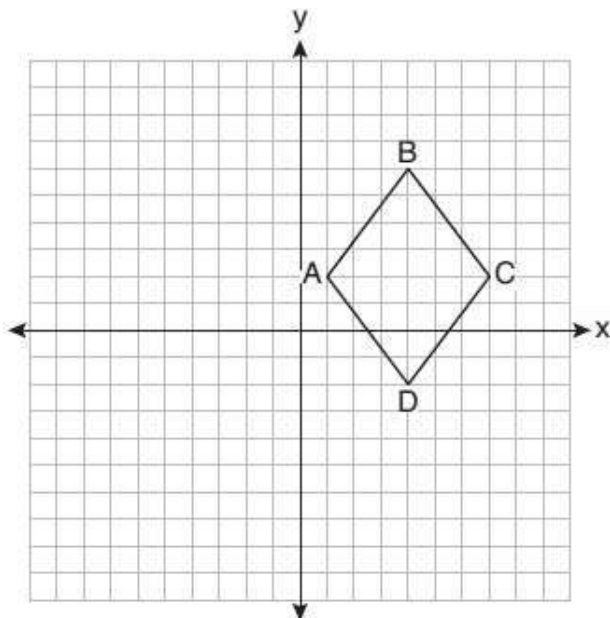
2. The triangle graphed below with vertices at $A(-2,5)$, $B(4,2)$, and $C(-8,-1)$, is graphed on the set of axes below. A vertical stretch of scale factor 2 with respect to $y = 0$ is represented by $(x, y) \rightarrow (x, 2y)$. Graph the image of this triangle, after the vertical stretch on the same set of axes.



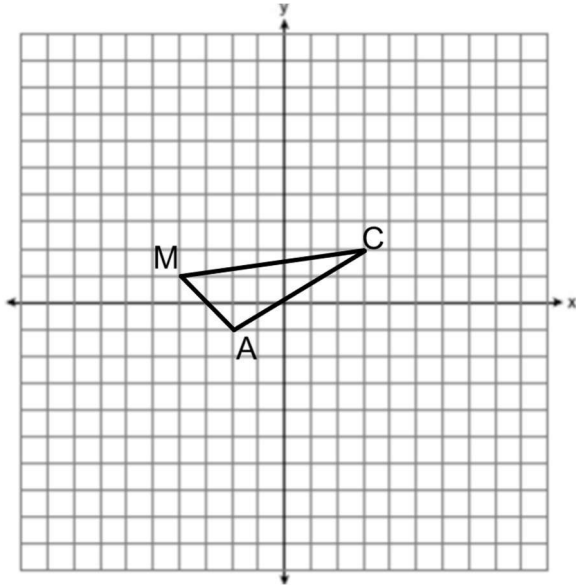
3. The triangle graphed below with vertices at $B(-3,-2)$, $U(1,1)$, and $L(-2,5)$, is graphed on the set of axes below. A horizontal stretch of scale factor 3 with respect to $x = 0$ is represented by $(x, y) \rightarrow (3x, y)$. Graph the image of this triangle, after the horizontal stretch on the same set of axes.



4. The rhombus graphed below with vertices at $A(1,2)$, $B(4,6)$, $C(7,2)$, and $D(4,-2)$, is graphed on the set of axes below. A vertical shrink of scale factor $\frac{1}{2}$ with respect to $y = 0$ is represented by $(x, y) \rightarrow (x, \frac{1}{2}y)$. Graph the image of this rhombus, after the vertical shrink on the same set of axes.



5. The triangle graphed below with vertices at $C(3,2)$, $A(-2,1)$, and $M(-4,1)$, is graphed on the set of axes below. A stretch of CAM is represented by $(x, y) \rightarrow (2x, 3y)$. Graph the image of this triangle, after the stretch on the same set of axes.



6. The triangle graphed below with vertices at $L(-2,3)$, $Y(4,2)$, and $S(2,-2)$, is graphed on the set of axes below. A stretch of LYS is represented by $(x, y) \rightarrow \left(\frac{1}{2}x, 3y\right)$. Graph the image of this triangle, after the stretch on the same set of axes.

