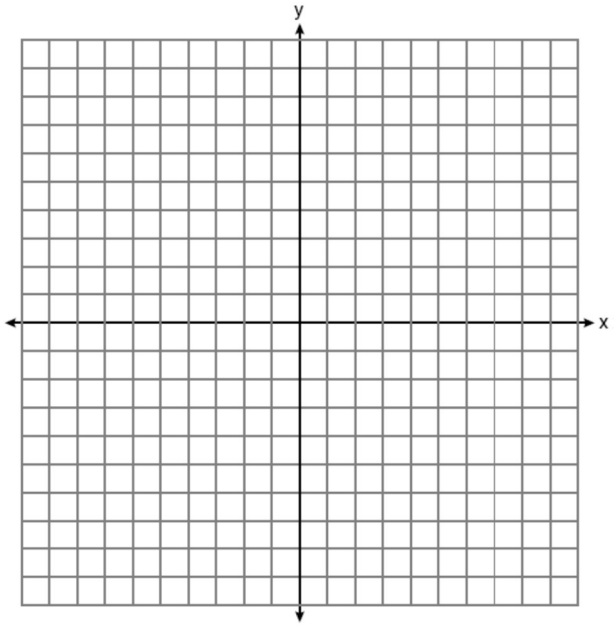
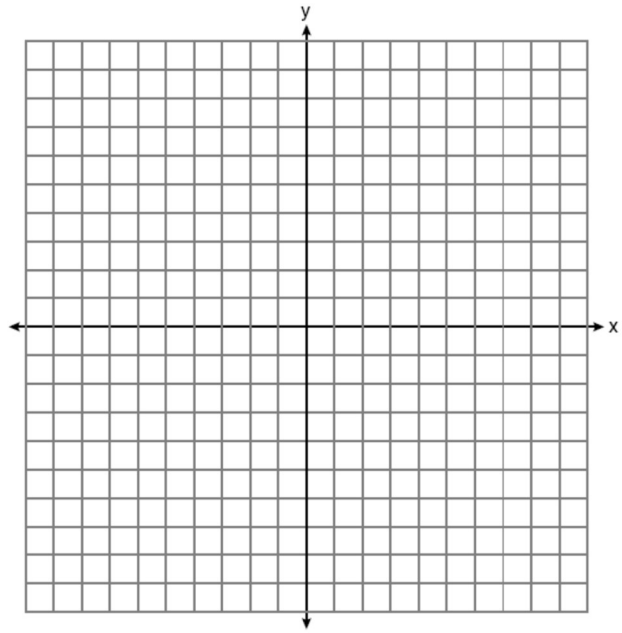
Name _____ Date _____
Mr. Schlansky Geometry

Dilations

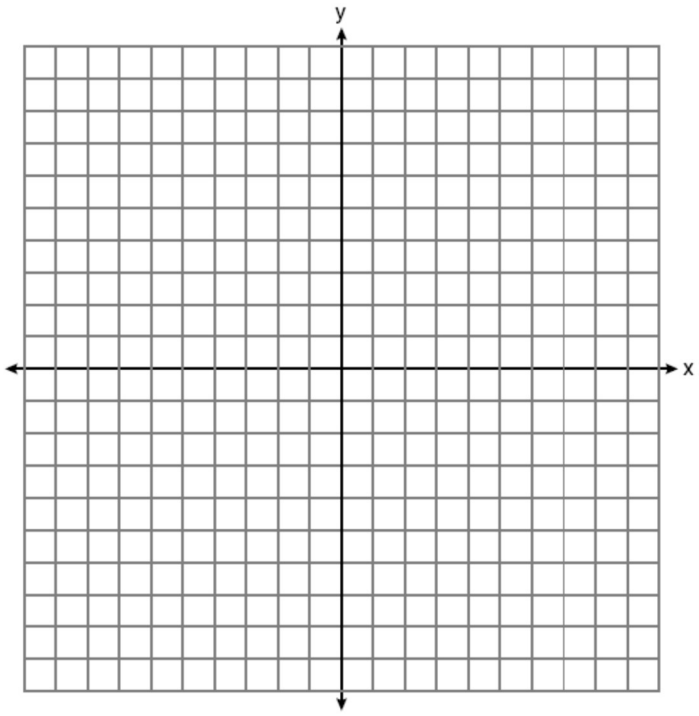
1. Triangle *SUN* has coordinates *S*(0,4), *U*(3,5), and *N*(3,0). On the accompanying grid, draw and label $\triangle SUN$. Then, graph and state the coordinates of $\triangle S'U'N'$, the image of $\triangle SUN$ after a dilation of 2 centered at the origin.



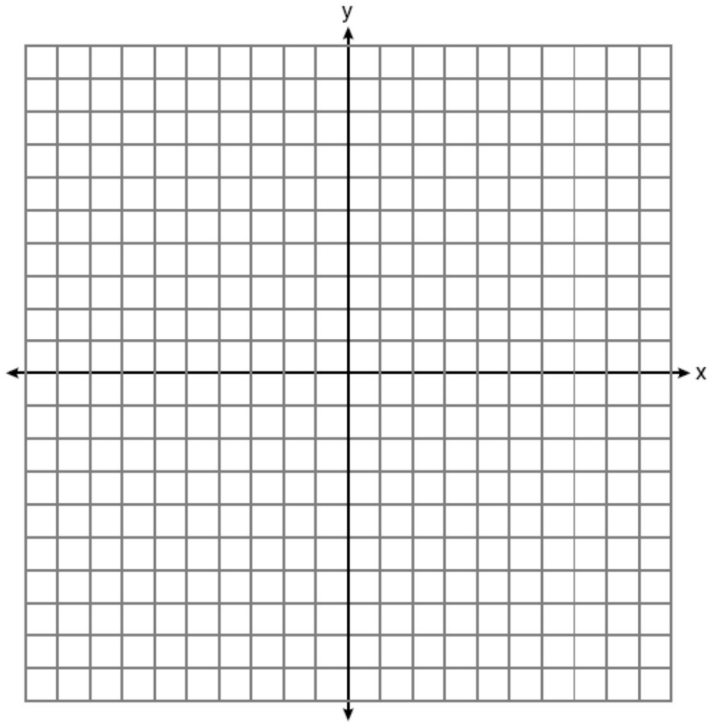
2. Triangle *SUN* has coordinates *S*(0,4), *U*(3,5), and *N*(3,0). On the accompanying grid, draw and label $\triangle SUN$. Then, graph and state the coordinates of $\triangle S'U'N'$, the image of $\triangle SUN$ after a dilation of 2 centered at (-1,4).



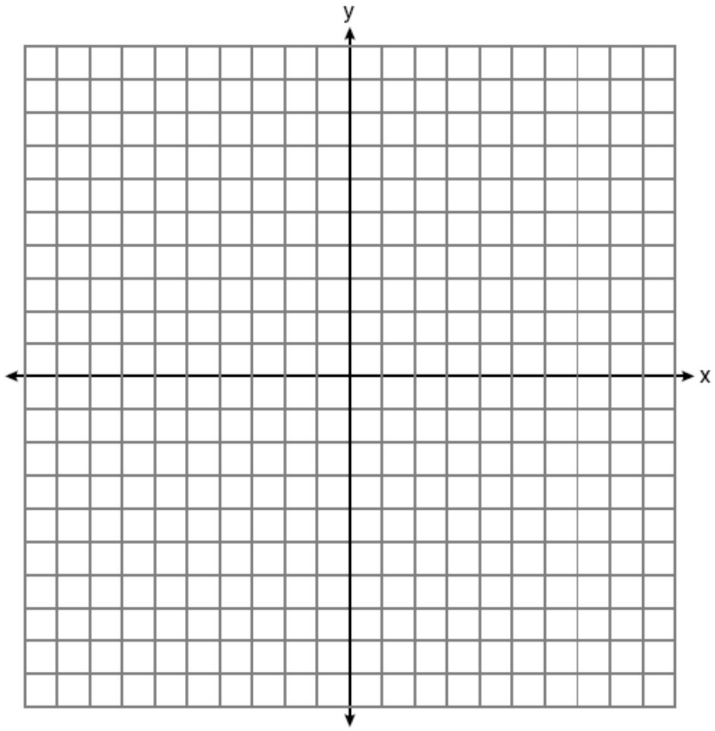
3. Triangle ABC has coordinates $A(2,1)$, $B(6,1)$, $C(5,3)$. What is the image of this triangle after a dilation of 4 centered at (6,4). Graph both the image and the pre image.



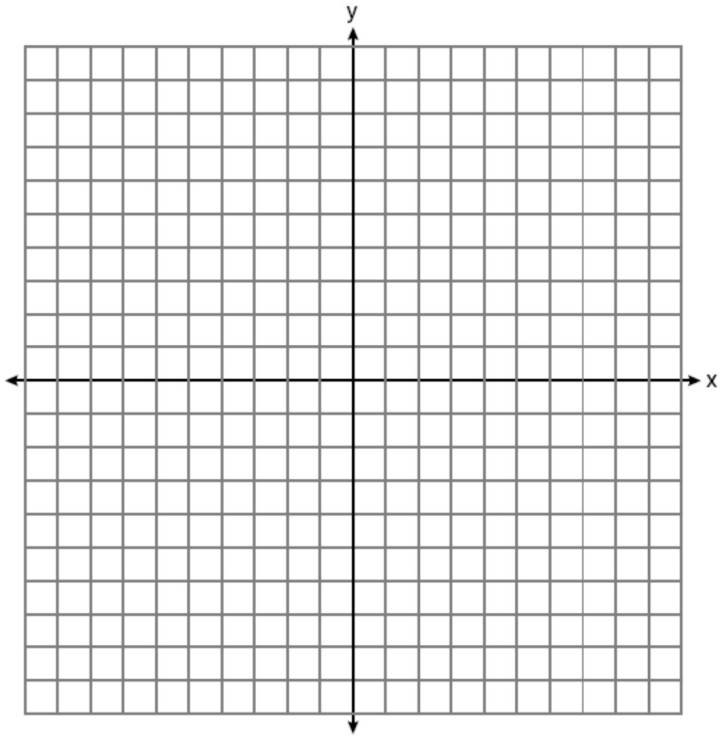
4. The coordinates of the vertices of $\triangle RST$ are $R(-2,3)$, $S(4,4)$, and $T(2,-2)$. Graph $\triangle RST$ and $\triangle R'S'T'$, the image of $\triangle RST$ after a dilation of 3 centered at (1,2).



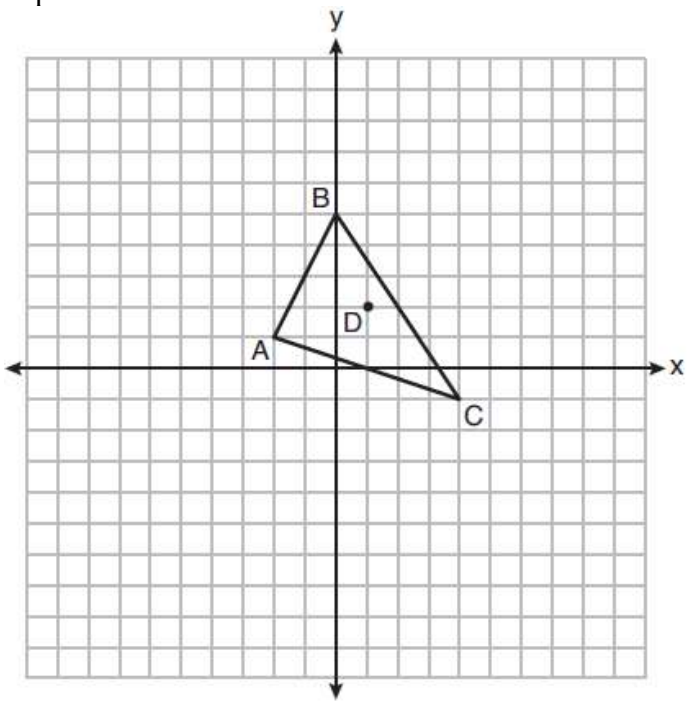
5. Triangle SBR has coordinates $S(-2,3)$, $B(-1,-2)$, and $R(3,-3)$. What is the image of this triangle after a dilation with a scale factor of 3 centered at the origin. Graph both the image and the pre image.



6. The coordinates of the vertices of ΔJKL are $J(5,-2)$, $K(6,1)$, and $L(-1,0)$. Graph ΔJKL. Graph and label $\Delta J'K'L'$, the image of ΔJKL after a dilation of 2 centered at J.



7. Triangle ABC and point $D(1, 2)$ are graphed on the set of axes below.
Graph and label $\triangle A'B'C'$, the image of $\triangle ABC$, after a dilation of scale factor 2 centered at point D.



8. Triangle QRS is graphed on the set of axes below.
On the same set of axes, graph and label $\triangle Q'R'S'$, the image of $\triangle QRS$ after a dilation with a scale factor of $\frac{3}{2}$ centered at the origin.