

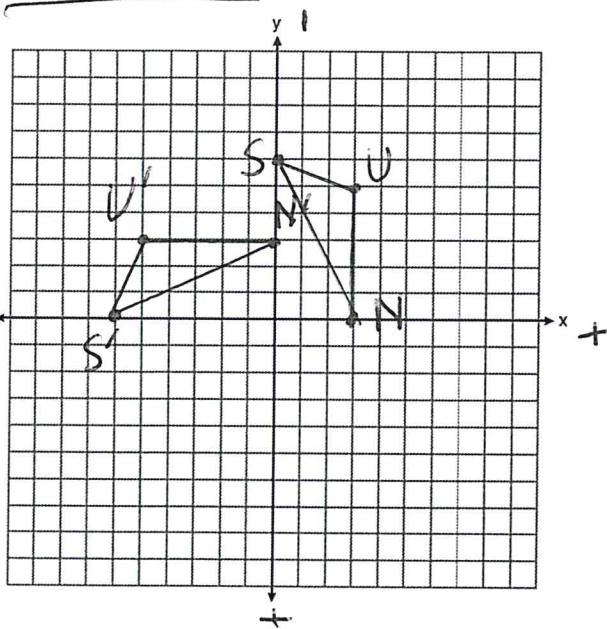
Name Schlansky
Mr. Schlansky

Date _____
Geometry



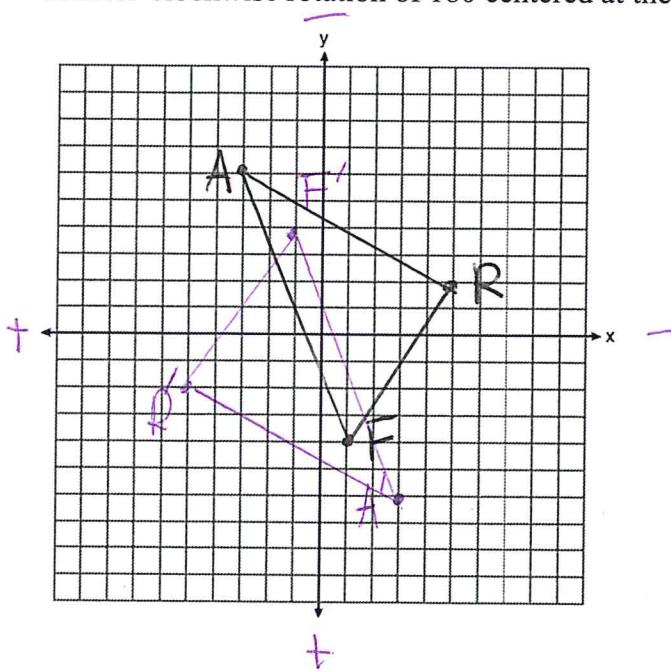
Rotations

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 counter-clockwise rotation of 90° centered at the origin.



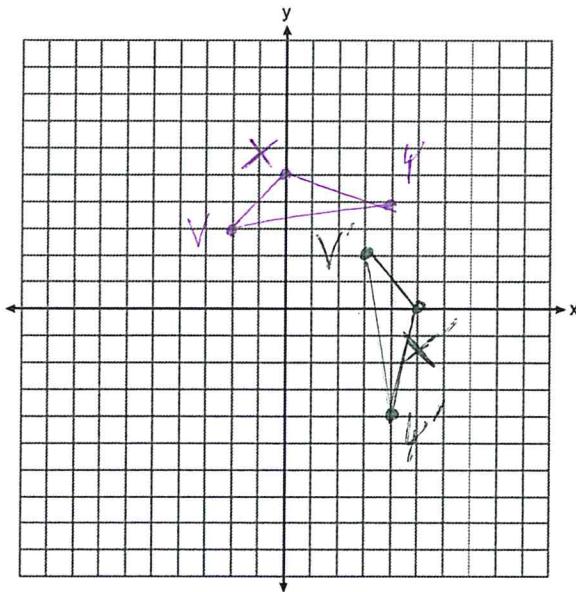
$$\begin{array}{l} N' \\ U' \\ S' \end{array} \begin{array}{l} (0,3) \\ (-5,3) \\ (-6,0) \end{array}$$

2. Triangle ARF has coordinates $A(-3,6)$, $R(5,2)$, and $F(1,-4)$. On the accompanying grid, draw and label $\triangle ARF$. Then, graph and state the coordinates of $\triangle A'R'F'$, the image of $\triangle ARF$ after a counter-clockwise rotation of 180° centered at the origin.



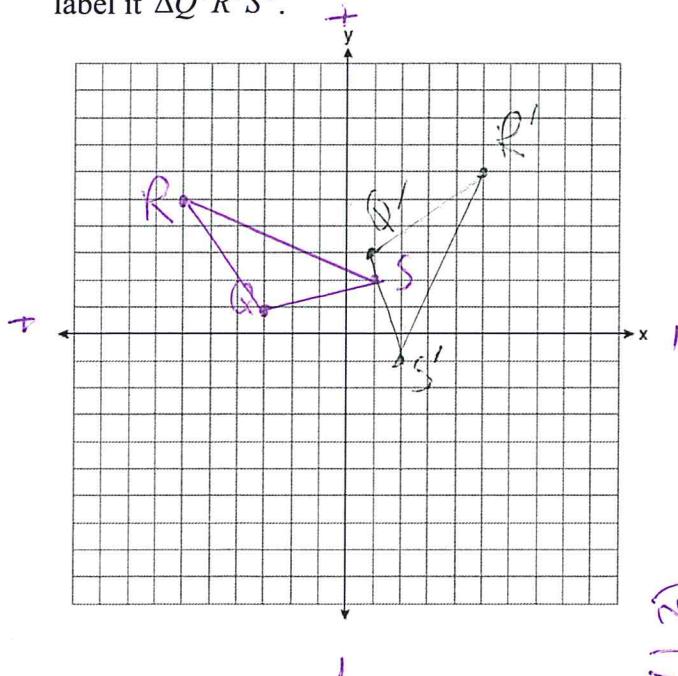
$$\begin{array}{l} A' \\ R' \\ F' \end{array} \begin{array}{l} (3, -6) \\ (-5, -2) \\ (-1, 4) \end{array}$$

3. On the accompanying set of axes, graph ΔVXY if it is the image of $V(-2,3)$, $X(0,5)$, and $Y(4,4)$ after a counter-clockwise rotation of 270° centered at the origin.



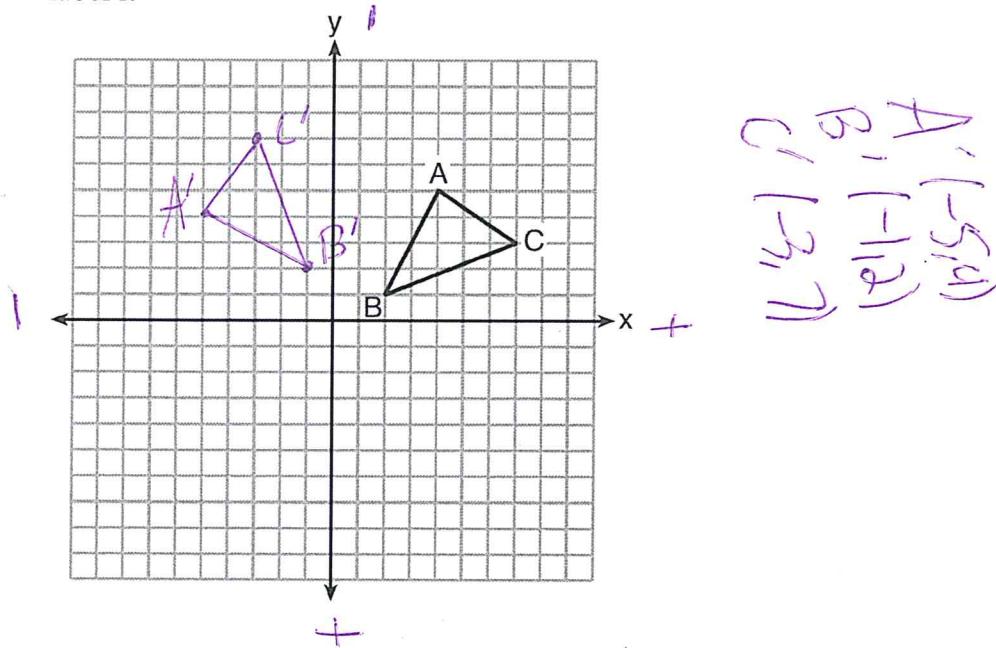
$$\begin{array}{l} X' (5,0) \\ X' (3,2) \\ V' (4,-4) \\ Y' \end{array}$$

4. The coordinates of ΔQRS are $Q(-3,1)$, $R(-6,5)$, and $S(1,2)$. Graph and state the coordinates of the image of ΔQRS after a clockwise rotation of 90° centered at the origin and label it $\Delta Q'R'S'$.

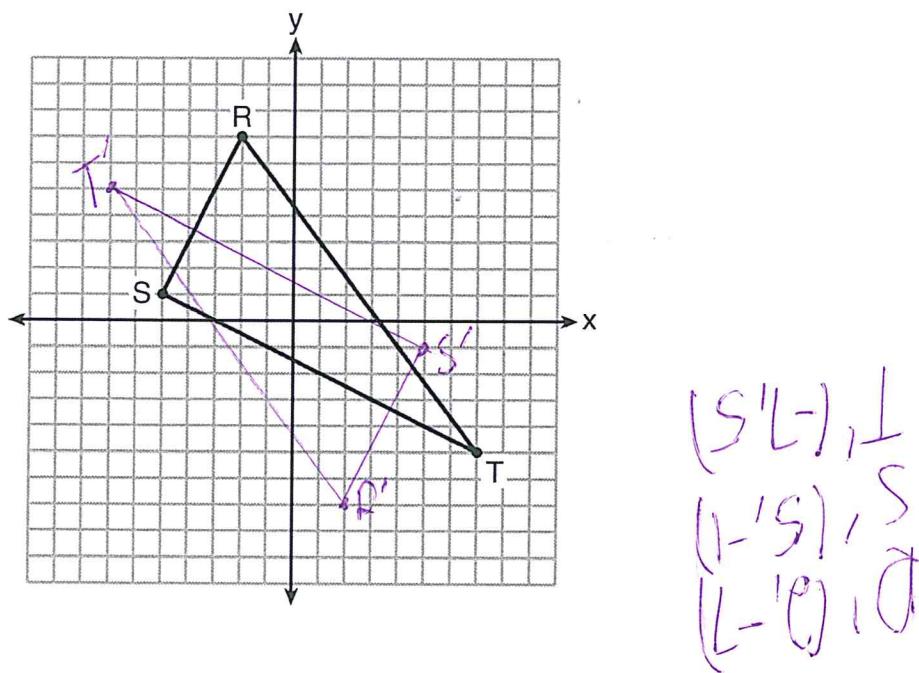


$$\begin{array}{l} Q' (1,3) \\ R' (5,6) \\ S' (2,-1) \end{array}$$

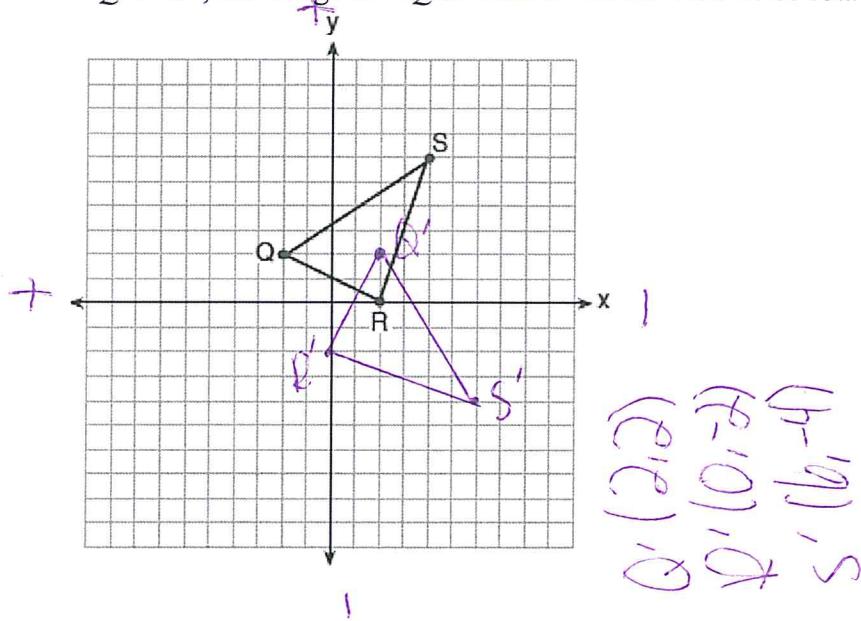
5. In the diagram below, $\triangle ABC$ is graphed with $A(4,5)$, $B(2,1)$, and $C(7,3)$. Graph and state the coordinates of the image of $\triangle ABC$ after a clockwise rotation of 270° centered at the origin and label it $\triangle A'B'C'$.



6. Triangle RST is graphed on the set of axes below with $R(-2,7)$, $S(-5,1)$, and $T(7,-5)$. Graph the image of $\triangle RST$ after a clockwise rotation of 180° centered at the origin and label it $\triangle R'S'T'$.



7. Triangle QRS is graphed on the set of axes below. Graph and state the coordinates of $\Delta Q'R'S'$, the image of ΔQRS after a counter-clockwise rotation of 270° centered at the origin.



8. Quadrilateral $ABCD$ is graphed on the set of axes below. State the coordinates of quadrilateral $A'B'C'D'$, the image of quadrilateral $ABCD$ after a clockwise rotation of 270° centered at the origin.

