



Name _____

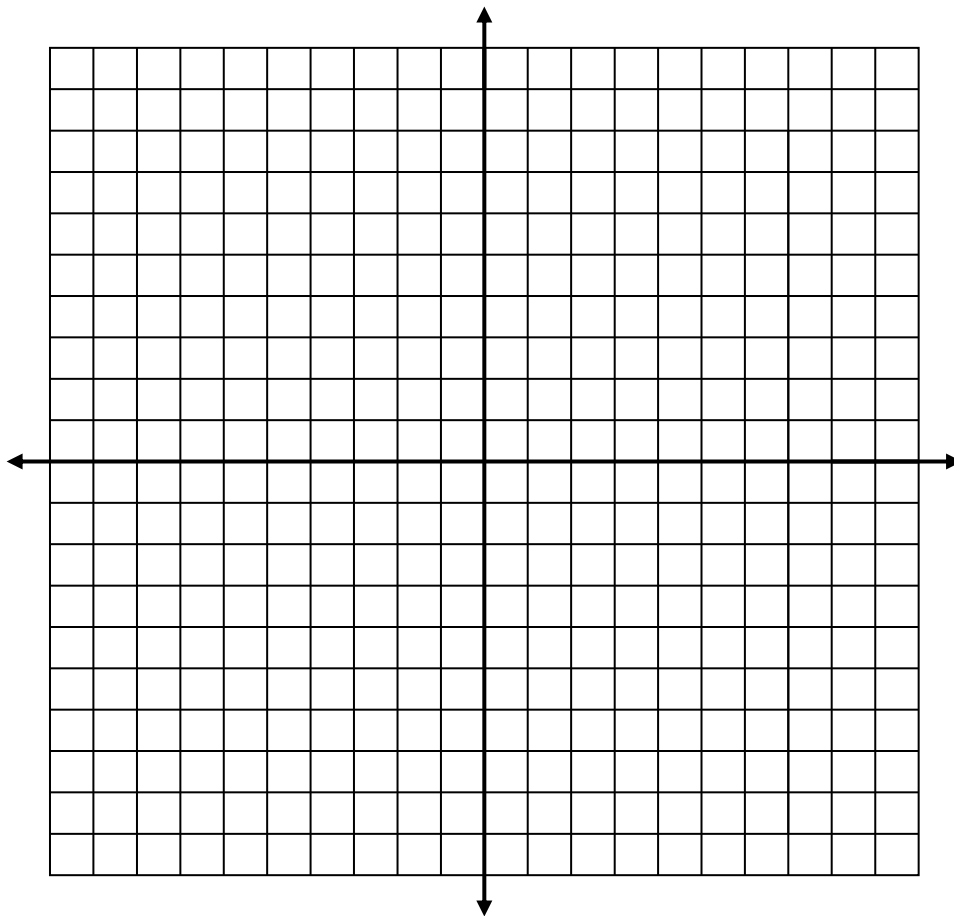
Lesson 13a: Transformations Practice

LEARNING TARGET

I CAN execute transformations of reflections, translations, and rotations.

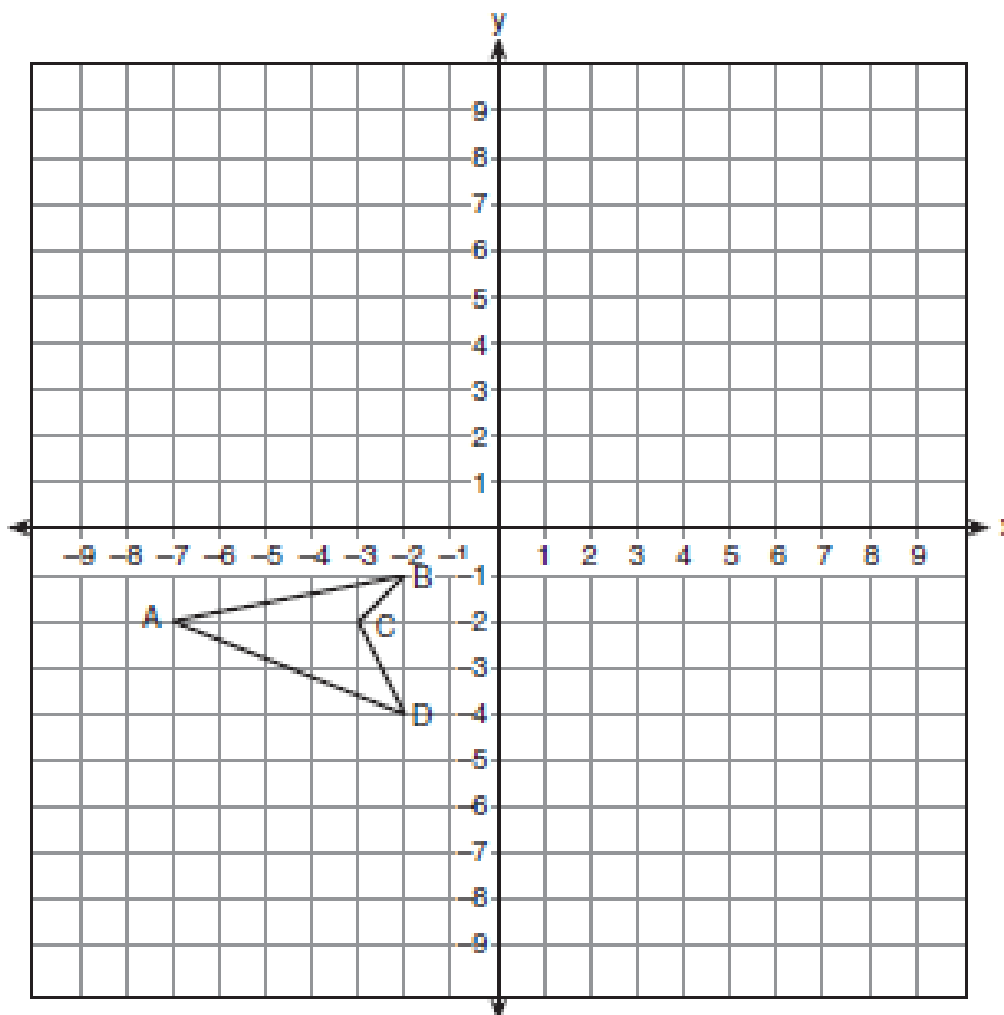
Work Time

- 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 in the y -axis.



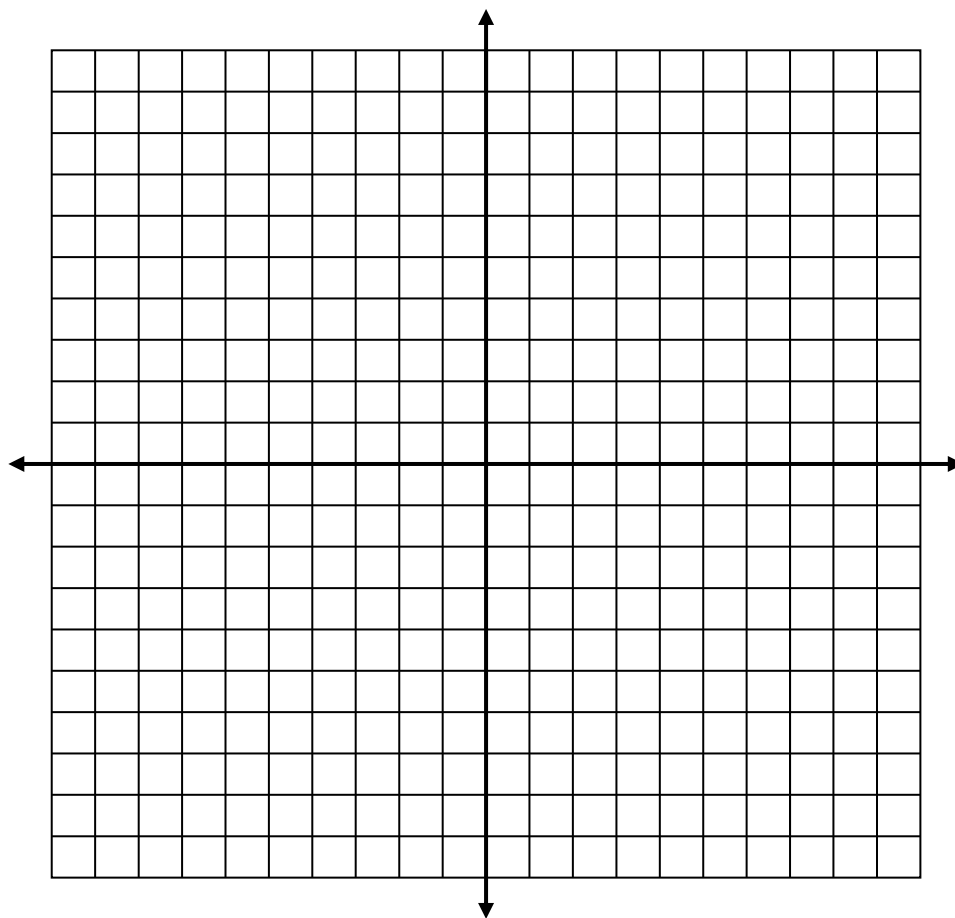
State the coordinates of $\triangle S''U''N''$, the reflection of $\triangle S'U'N'$ after a reflection in the x -axis.

2. On the accompanying set of axes, draw the reflection of $ABCD$ in the y -axis. Label and state the coordinates of the reflected figure.



State the coordinates of $A''B''C''D''$ after a reflection in the line $y = x$.

3. Triangle TAP has coordinates $T(-1,4)$, $A(2,4)$, and $P(2,0)$. On the set of axes below, graph and label $\Delta T'A'P'$, the image of ΔTAP after the translation $(x,y) \rightarrow (x - 5, y - 1)$.



4. A design was constructed by using two rectangles $ABDC$ and $A'B'C'D'$. Rectangle $A'B'C'D'$ is the result of a translation of rectangle $ABDC$. The table of translations is shown below. Find the coordinates of points B and D' .

Rectangle $ABDC$	Rectangle $A'B'D'C'$
A (2,4)	A' (3,1)
B	B' (-5,1)
C (2,-1)	C' (3,-4)
D (-6,-1)	D'

5. What is the image of the point $(-3, -6)$ on rotation of 90° about the origin?

6. What is the image of the point $(2, -3)$ under a clockwise rotation of 90° (R_{90°) about the origin?

7. The coordinates of the endpoints of \overline{BC} are $B(5, 1)$ and $C(-3, -2)$. Under the transformation R_{90} , the image of \overline{BC} is $\overline{B'C'}$. State the coordinates of points B' and C' .

8. The coordinates of the vertices of $\triangle RST$ are $R(-2, 3)$, $S(4, 4)$, and $T(2, -2)$. Triangle $R'S'T'$ is the image of $\triangle RST$ after a rotation of 90° about the origin. Graph and state the coordinates of the vertices of $\triangle R'S'T'$.

