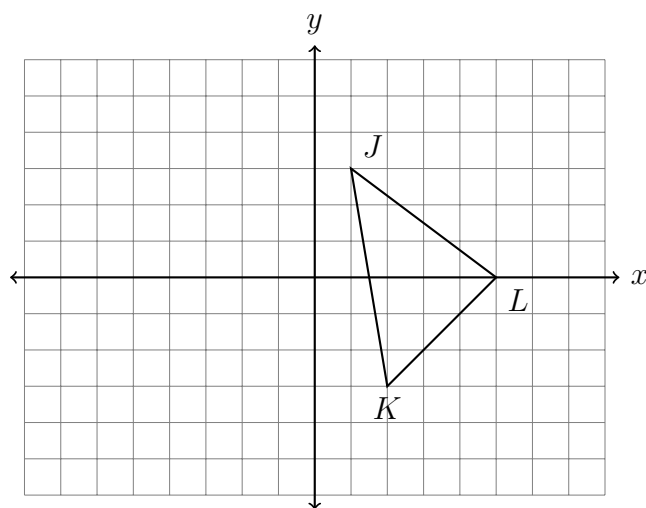


Name:

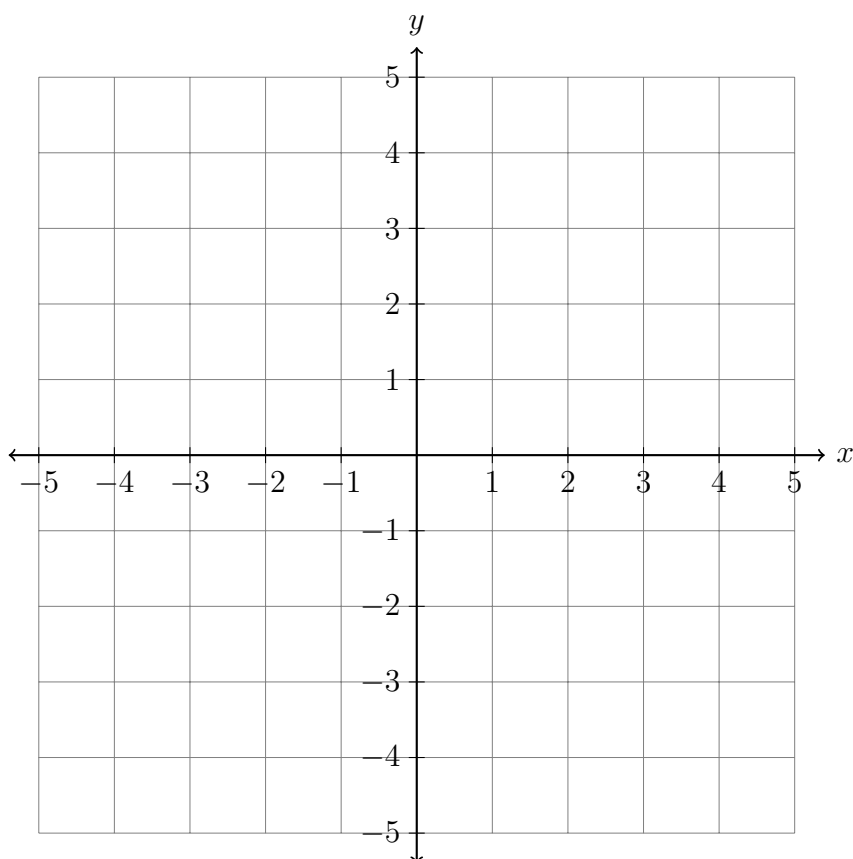
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5.3 Classwork: Rotation**CCSS.HSN.RN.A.2**

1. Do Now: Reflect $\triangle JKL$ across the y -axis, labeling the image $\triangle J'K'L'$.

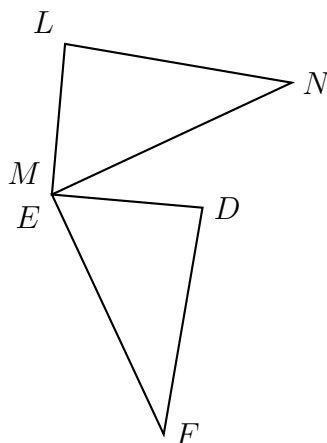


2. On the axes below, mark and label the origin, $O(0,0)$. Plot the point $P(4,1)$ and segment \overline{OP} . Graph its image, $\overline{O'P'}$, after a 90° counterclockwise rotation around the origin. Mark P' and write it down as a coordinate pair.



3. A rotation maps triangle DEF onto triangle LMN .

Write the letter or letters for each corresponding object.



(a) $E \rightarrow$

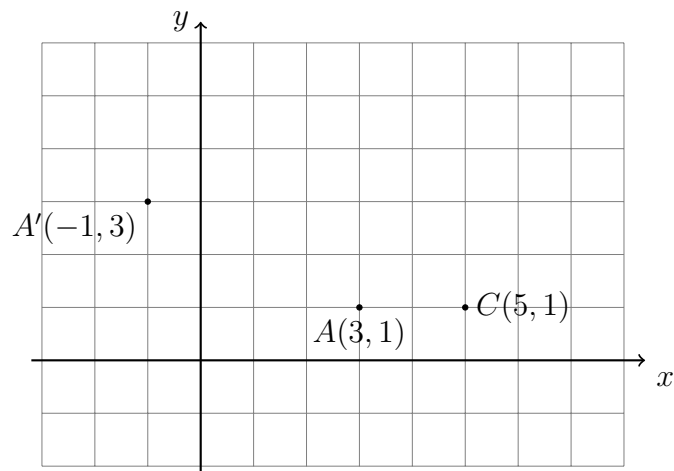
(b) $F \rightarrow$

(c) $DF \rightarrow$

4. A rotation centered at the origin maps A to A' , as shown, $A(3, 1) \rightarrow A'(-1, 3)$.

(a) Which correctly identifies the rotation?

- (A) Clockwise 180°
- (B) Counter clockwise 180°
- (C) Clockwise 90°
- (D) Counter clockwise 90°
- (E) None of the above



- (b) If the same translation is applied to $C(5, 1) \rightarrow C'(x, y)$, plot and label the point C' as an ordered pair.

Name:

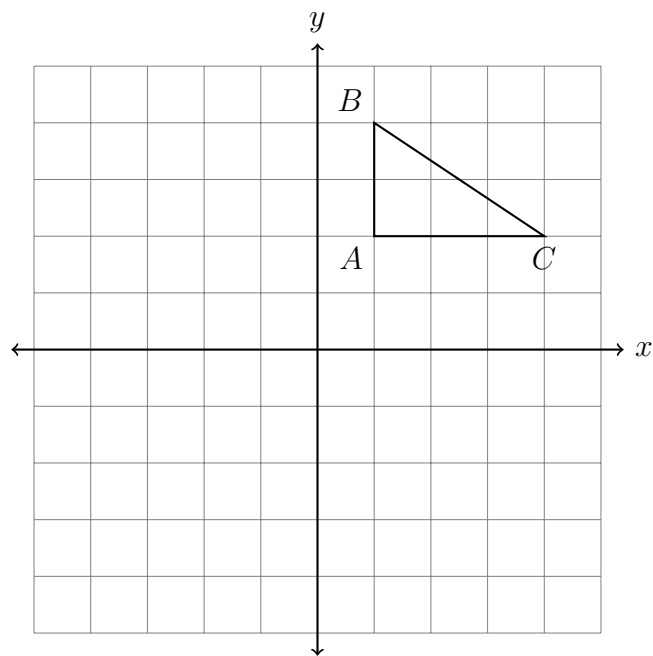
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5. Rotate the triangle 90° clockwise around the origin, $\triangle ABC \rightarrow \triangle A'B'C'$. Complete the table of the coordinates and plot and label the image on the grid.

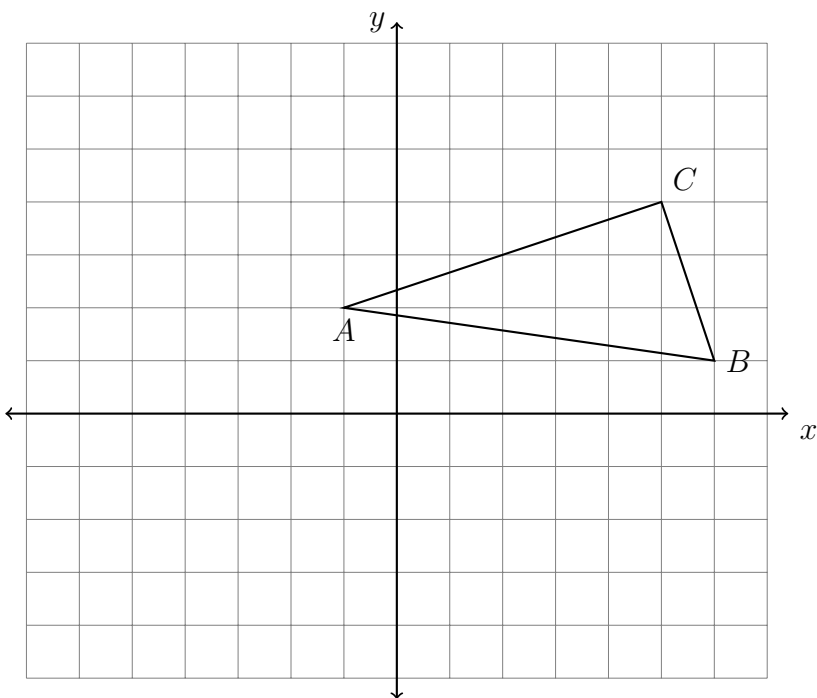
$$A(1, 2) \rightarrow$$

$$B(1, 4) \rightarrow$$

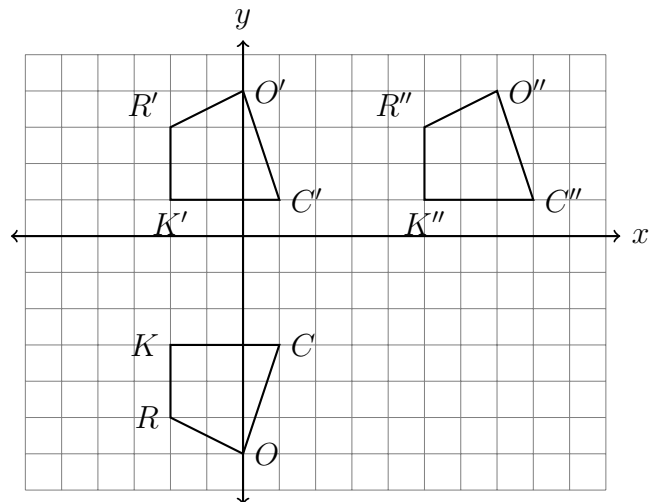
$$C(4, 2) \rightarrow$$



6. $\triangle ABC$ is shown with vertices $A(-1, 2)$, $B(6, 1)$, and $C(5, 4)$. Rotate the triangle 90° counter clockwise around the origin. Write down its coordinates in a table and plot and label it on the graph.



7. The quadrilateral $ROCK$ undergoes rigid motions, shown below. Describe the sequence of transformations applied.



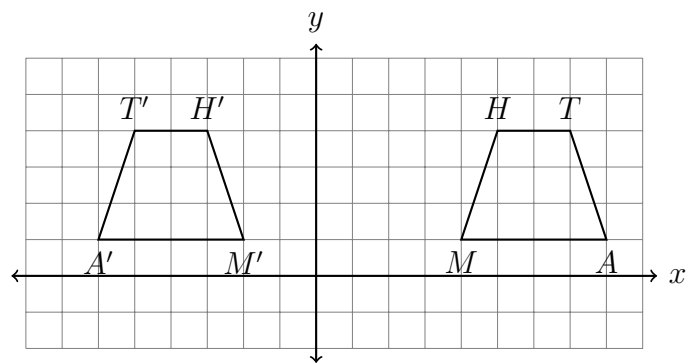
8. The quadrilateral $MATH$ is mapped to $M'A'T'H'$ by a rigid motion. What transformation has been applied?

(a) Dilation

(b) Reflection

(c) Rotation

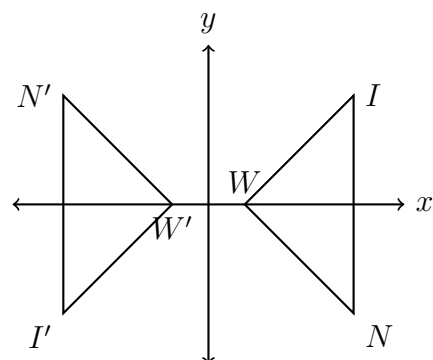
(d) Translation



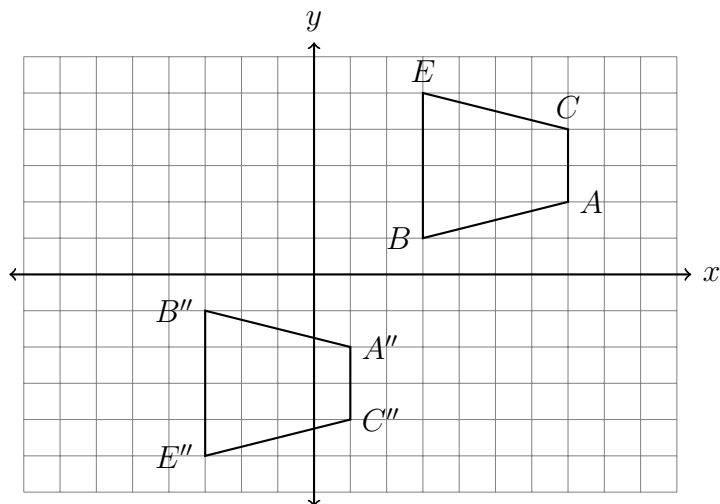
Name:

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9. Given $\triangle WIN \cong \triangle W'I'N'$. Describe the rigid motion mapping $\triangle WIN \rightarrow \triangle W'I'N'$.



10. Determine and state the sequence of transformations applied to map $BECA$ to $B''E''C''A''$.



11. Determine and state the transformation mapping $\triangle NOP$ onto $\triangle QRP$.

