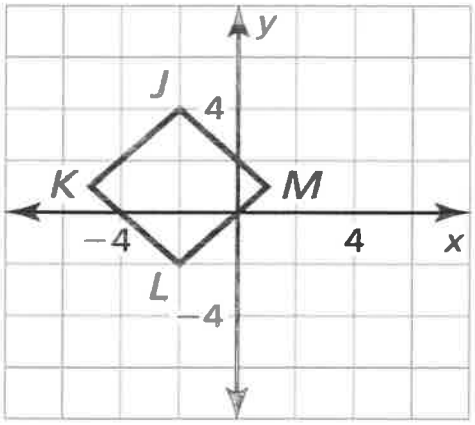
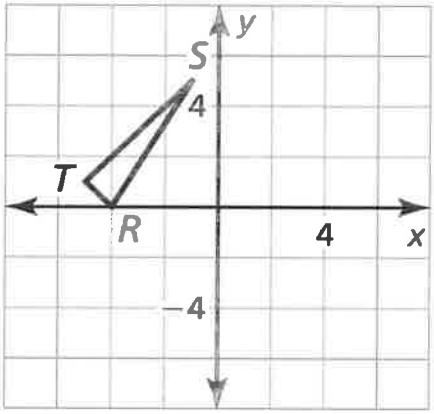
Name _____ Date _____

In Exercises 1–3, graph the image of the polygon after a rotation of the given number of degrees about the origin.

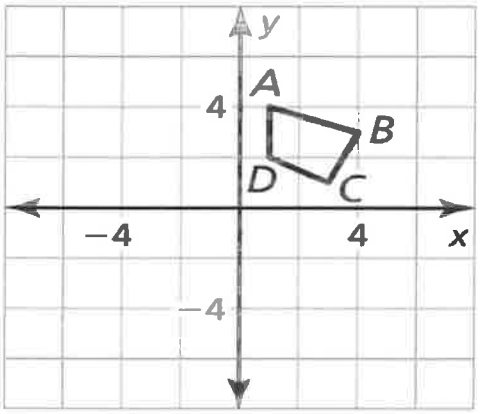
1. 180°



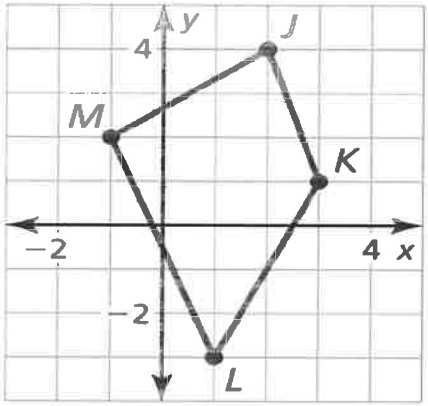
2. 90°



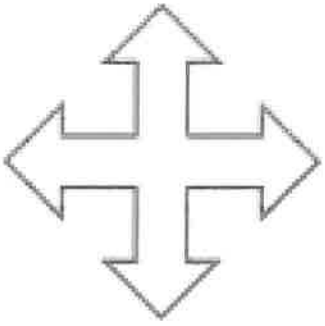
3. 270°



Graph the polygon after a 270° rotation about the origin.

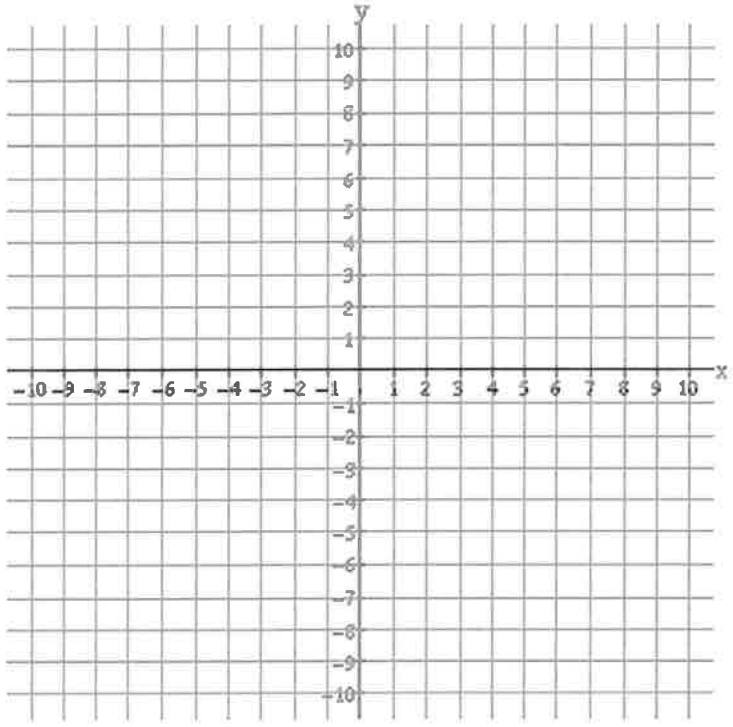


Determine if each figure has rotational symmetry. If so, describe any rotations that map the figure onto itself.

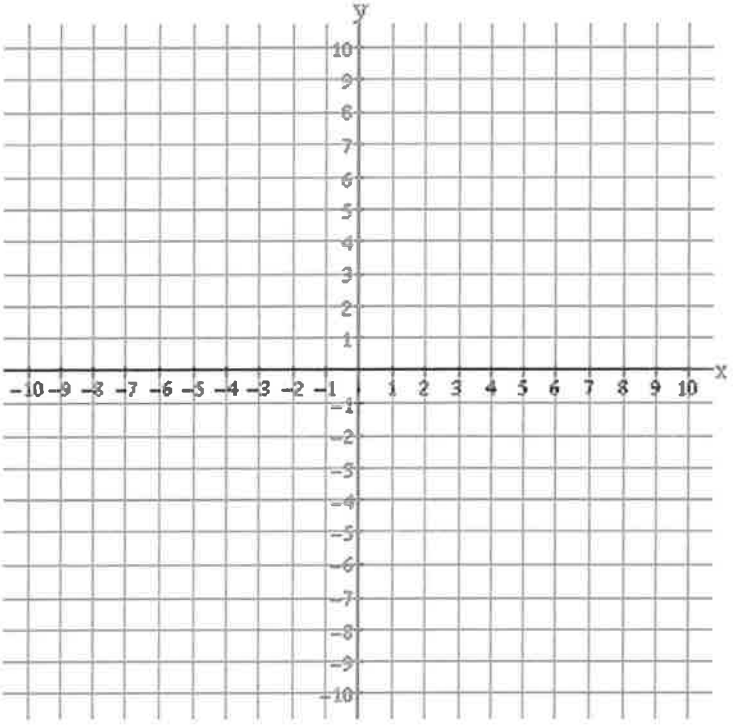


Graph ΔCDE with vertices $C(-1, -3)$, $D(4, 2)$, and $E(-5, -1)$ and its image after the composition.

7. **Rotation:** 180° about the origin
   Translation: $(x, y) \rightarrow (x + 3, y + 1)$



8. **Reflection:** in the line $x = y$
   Rotation: 270° about the origin



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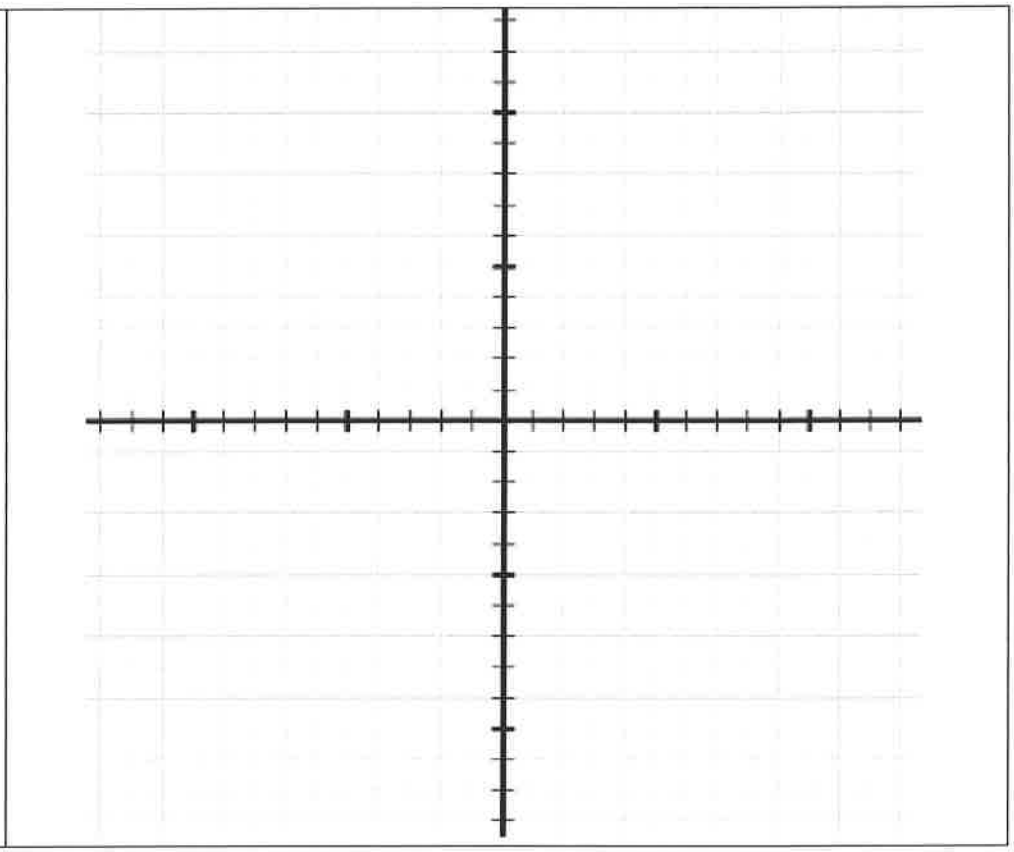
A triangle is defined by the following points:
A(10, 2), B(4, 8), C(-3, 3).
Perform a rotation of -90 degrees about the point (3, 4).



A triangle is defined by the following points:
A(-8, 4), B(-10, -2), C(-1, -2).
Perform a rotation of 90 degrees about the point (2, 3).