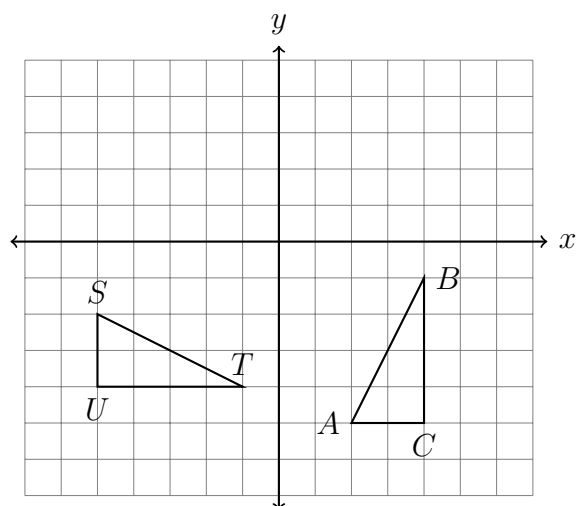**9.9b Quiz: Rigid motions, translation, reflection, rotation**
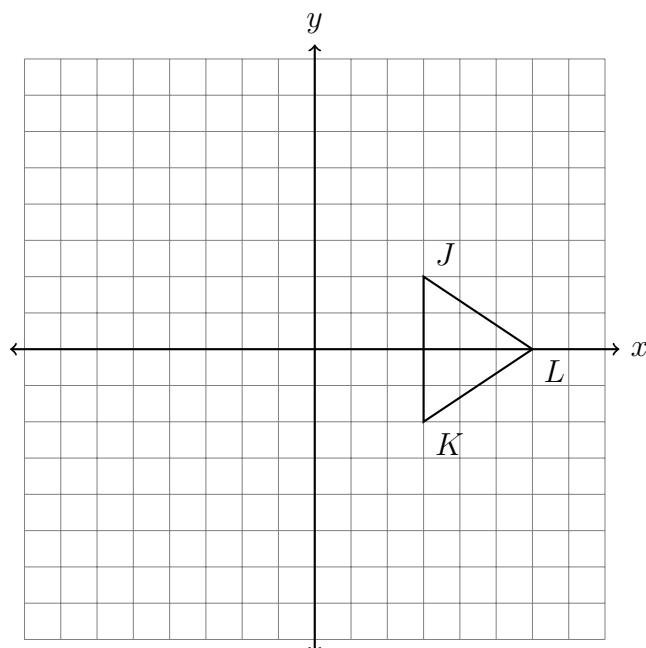
1. State the translation that would map $M(-2,9)$ onto $M'(-1,8)$.

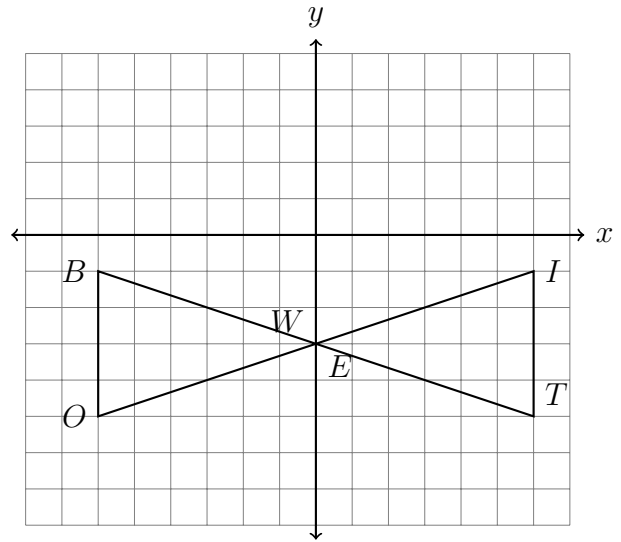2. On the set of axes below, $\triangle ABC \cong \triangle STU$.

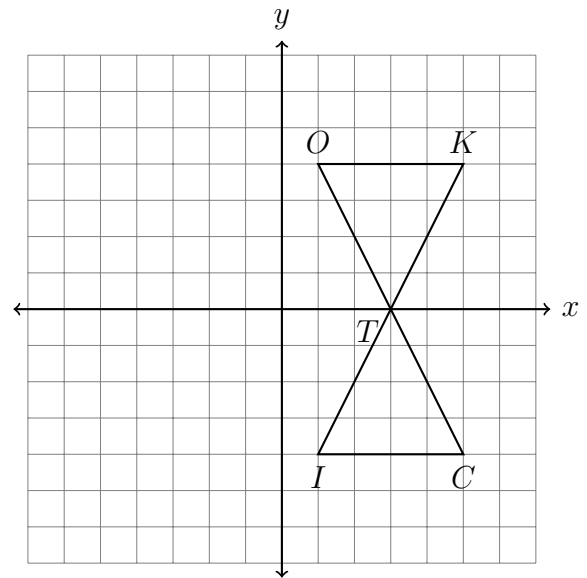   Describe the rigid motion that maps $\triangle ABC$ onto $\triangle STU$.

3. Rotate $\triangle JKL$ 90° clockwise around the origin on the axes below, labeling the image $\triangle J'K'L'$.

4. Determine and state the transformation mapping $\triangle BOW$ onto $\triangle TIE$.

5. Describe a rigid motion that maps $\triangle TIC$ onto $\triangle TOK$.

6. Find the coordinates of the image of the point $D(3, 5)$ after a reflection across the x-axis.
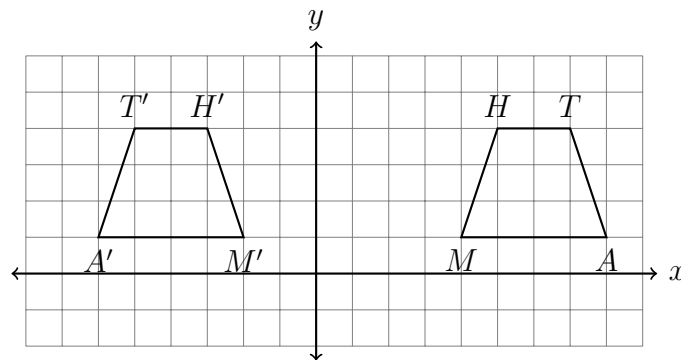
7. The quadrilateral $MATH$ is mapped to $M'A'T'H'$ by a rigid motion. What transformation a been applied?
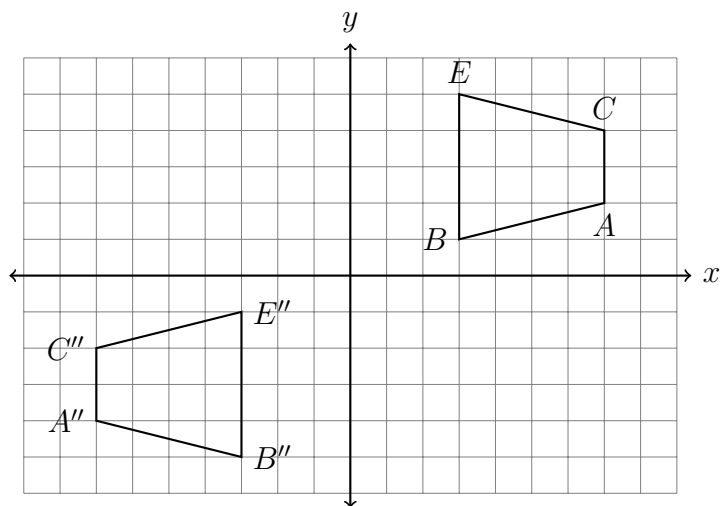
   (a) Dilation
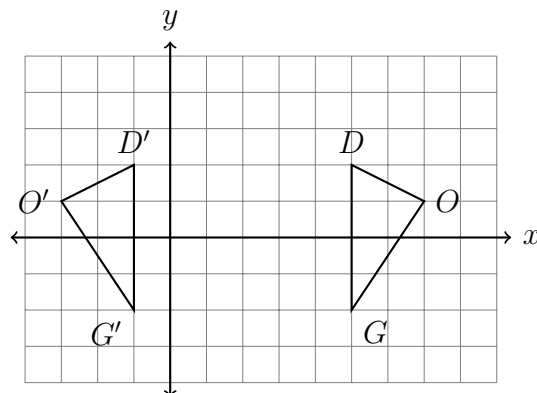
   (b) Reflection

   (c) Rotation

   (d) Translation

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

9. Which of the following would map $\triangle DOG \to \triangle D'O'G'$?

   T   F $(x, y) \to (x - 6, y + 0)$

   T   F   Rotated 90° clockwise around $(2, 0)$

   T   F   Reflected across the y-axis

   T   F   Translated six to the left, down zero

   T   F   Slid to the left four, then reflected across the y-axis

   T   F   Reflected across the line $x = 2$

10. The quadrilateral $KITE$ undergoes rigid motions, shown below. Describe the sequence of transformations applied.
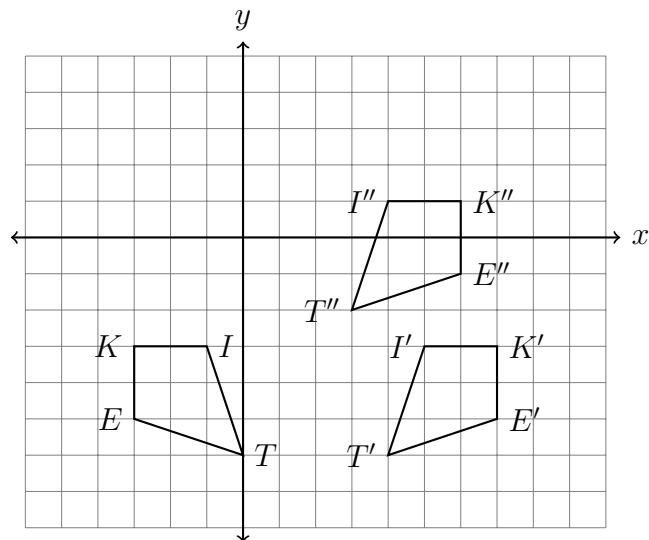
11. Reflect the rhombus $BECA$ across the x-axis, then translated $(x, y) \rightarrow (x + 4, y + 2)$. Label the images $B'E'C'A'$ and $B''E''C''A''$.