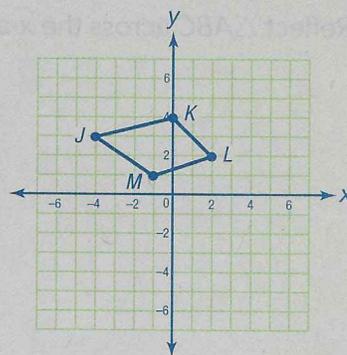


EXAMPLE A Graph the image of quadrilateral $JKLM$ after the reflection described below.

$$F(x, y) = (y, x).$$

Then describe the reflection in words.



1

Identify the coordinates of the vertices of quadrilateral $JKLM$.

The quadrilateral has vertices $J(-4, 3)$, $K(0, 4)$, $L(2, 2)$, and $M(-1, 1)$.

2

Apply the function to the vertices.

$$F(-4, 3) = (3, -4)$$

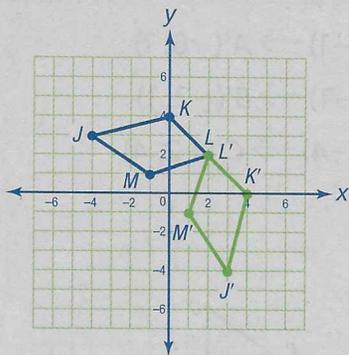
$$F(0, 4) = (4, 0)$$

$$F(2, 2) = (2, 2)$$

$$F(-1, 1) = (1, -1)$$

3

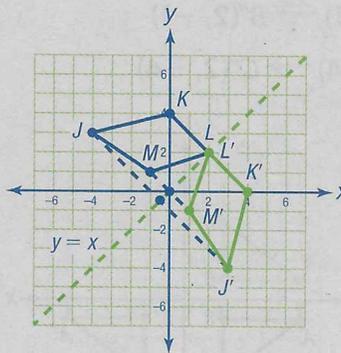
Graph the image.



4

Describe the reflection in words.

Find the line that lies halfway between corresponding points of the figure.



Each of these halfway marks lies on the line $y = x$.

► The function performs a reflection across the line $y = x$.

TRY

Apply the same function, $F(x, y) = (y, x)$, to $J'K'L'M'$. What image results?