4.1.4 Reflections Practice

Key

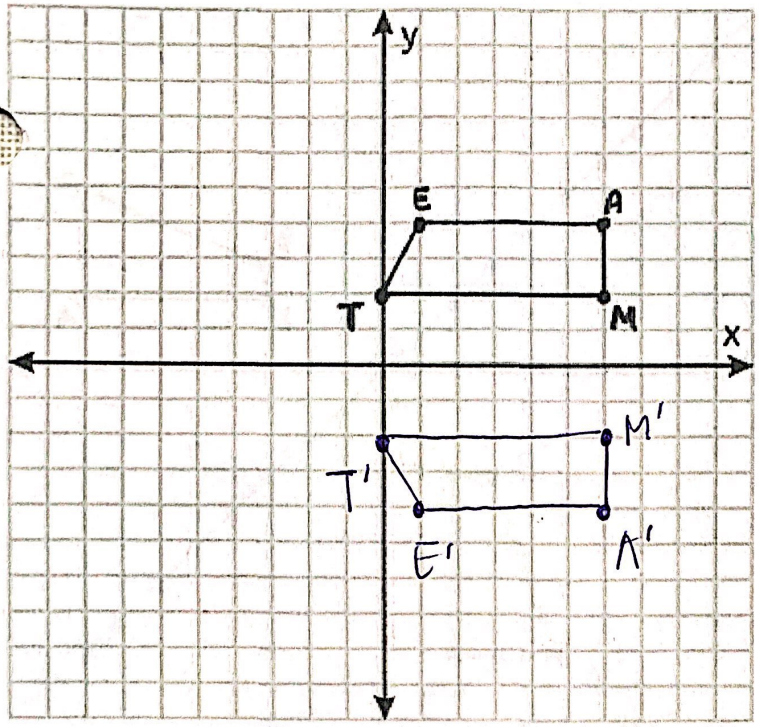

Figure $TEAM$ is reflected. After undergoing this rigid motion transformation, $A(6,4)$ maps to $A'(6,-4)$.

- What line is the figure reflected over?

  X-axis or the line $y=0$

- Write the function rule for the translation.

  $f(x,y) = (x,-y)$

- Identify the image points T', E', M'.

  $T'(0,-2)$

  $E'(1,-4)$

  $M'(6,-2)$

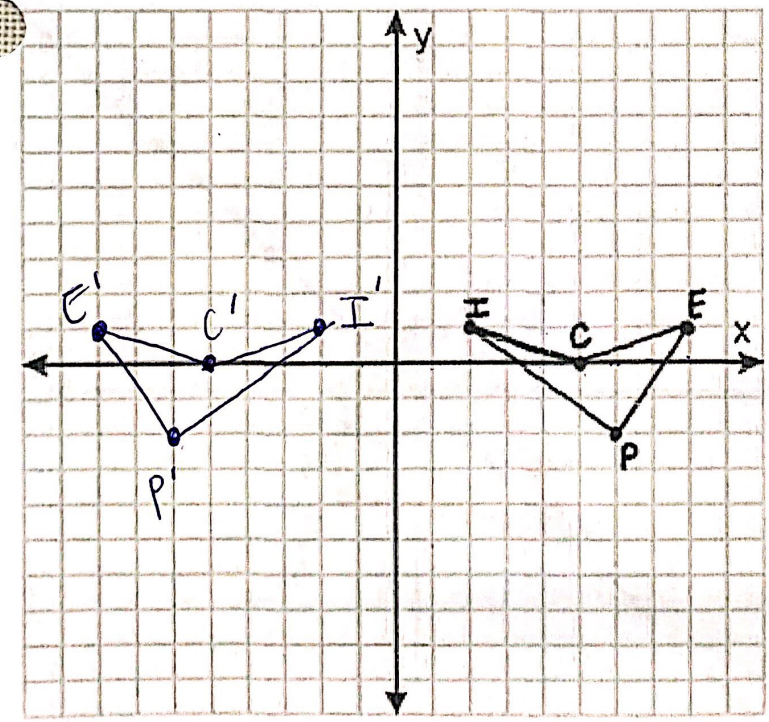

Figure $EPIC$ is translated using the function rule $f(x,y) = (-x,y)$

- Describe the transformation in words.

  Reflect over the y-axis or the line $x=0$

- Identify the mapping for each vertex.

  $E(8,1) \rightarrow E'(-8,1)$

  $P(6,-2) \rightarrow P'(-6,-2)$

  $I(2,1) \rightarrow I'(-2,1)$

  $C(5,0) \rightarrow C'(-5,0)$

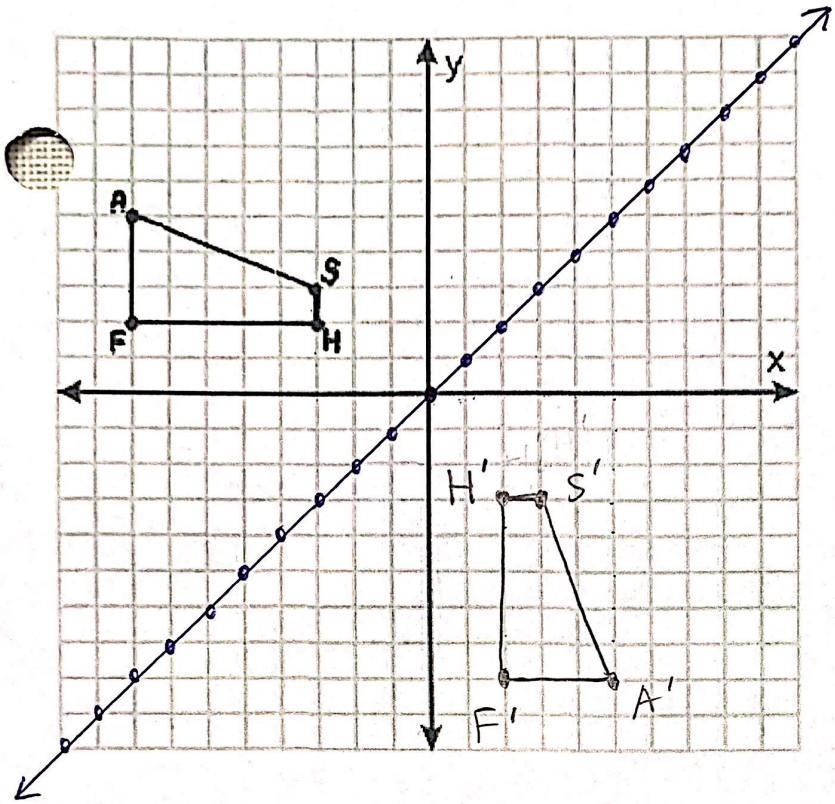

Figure $AFHS$ is reflected over the line $y = x$. (y, x)

- Write the function rule for the translation.

$f(x) = (y, x)$

- Identify the domain and range.

DOMAIN: $\{(-8,5), (-8,2), (-3,2), (-3,3)\}$

RANGE: $\{(5,-8), (2,-8), (2,-3), (3,-3)\}$

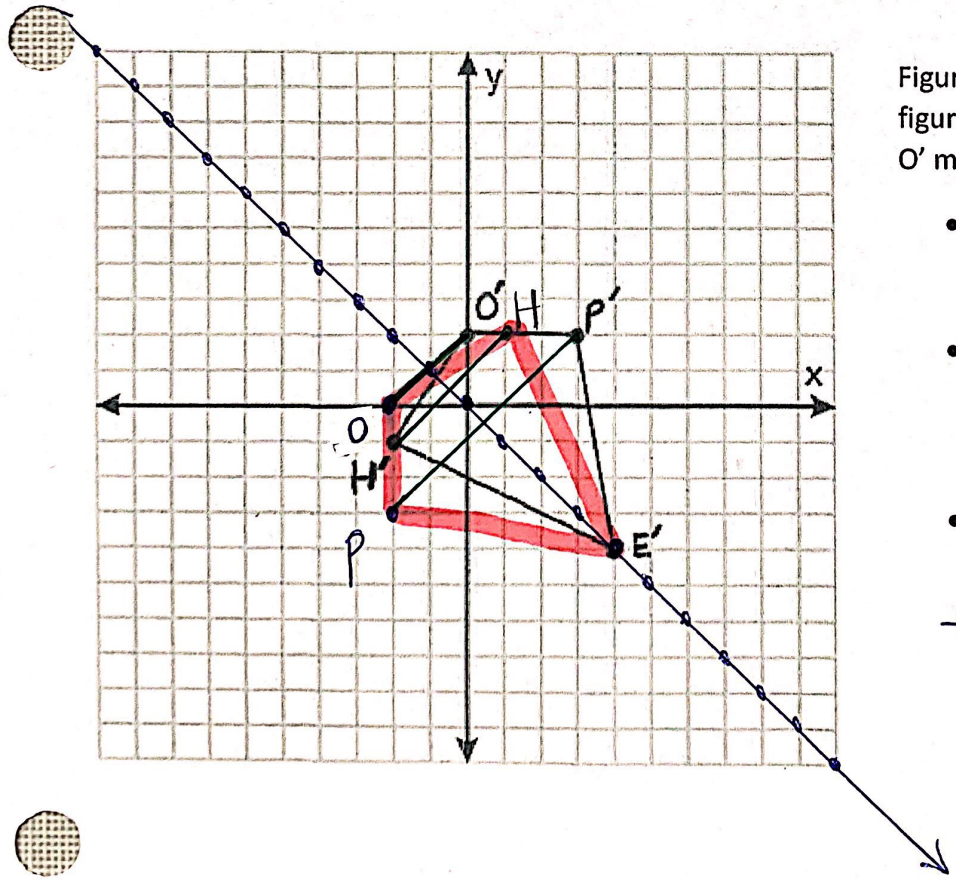

Figure $H'O'P'E'$ is transformed to create figure $HOPE$. Point E did not move and point O' moved to point O(-2,0).

- Describe the reflection in words.

Reflected across line $y = -x$

- Identify possible coordinates of figure $HOPE$.

H(1,2) P(-2,-3)
O(-2,0) E(4,-4)

- Write the function rule for the transformation.

$f(x,y) = (-y, -x)$