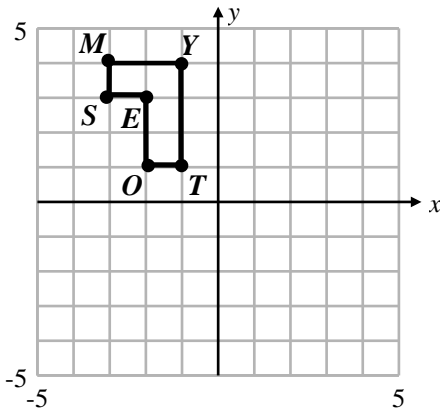




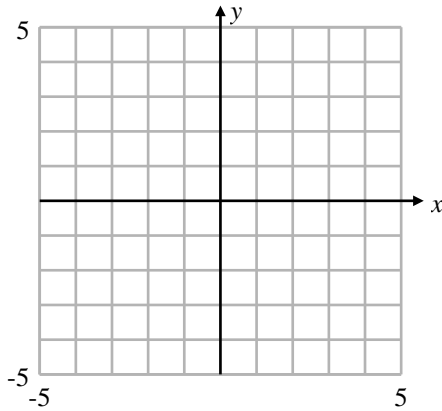
Transformations #2

Sketch the graph $M'Y'T'O'E'S'$ of each of the following transformations below using the Figure $MYTOES$. Draw the original shape and the newly transformed shape on each grid.



- A. Reflect it over the x -axis
- B. Reflect it over the y -axis
- C. Translate it $(4, -5)$
- D. Rotate it 180° clockwise about the origin
- E. Rotate it 90° counter clockwise about the origin

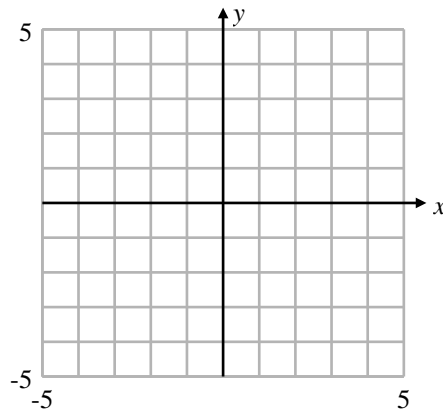
A.



M' _____ Y' _____ T' _____

O' _____ E' _____ S' _____

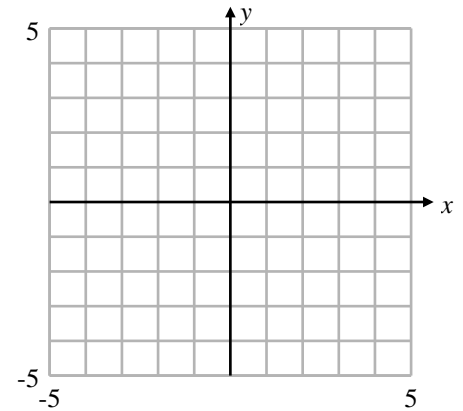
B.



M' _____ Y' _____ T' _____

O' _____ E' _____ S' _____

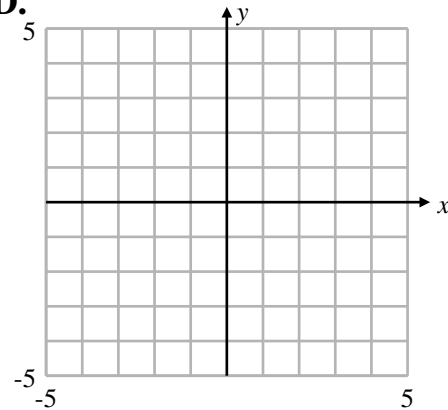
C.



M' _____ Y' _____ T' _____

O' _____ E' _____ S' _____

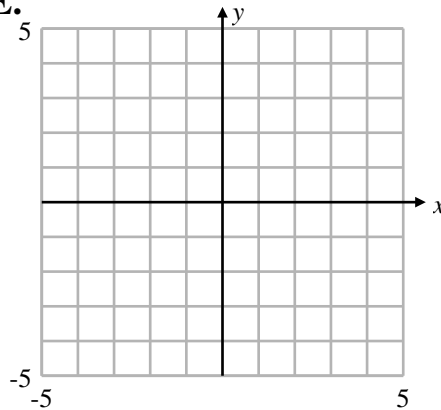
D.



M' _____ Y' _____ T' _____

O' _____ E' _____ S' _____

E.



M' _____ Y' _____ T' _____

O' _____ E' _____ S' _____

F.

a) After reflection, translation and rotation:

$$\overline{MY} \cong \underline{\hspace{1cm}}, \overline{YT} \cong \underline{\hspace{1cm}}, \overline{TO} \cong \underline{\hspace{1cm}},$$

$$\overline{OE} \cong \underline{\hspace{1cm}}, \overline{ES} \cong \underline{\hspace{1cm}}, \overline{SM} \cong \underline{\hspace{1cm}}.$$

b) After reflection, translation and rotation:

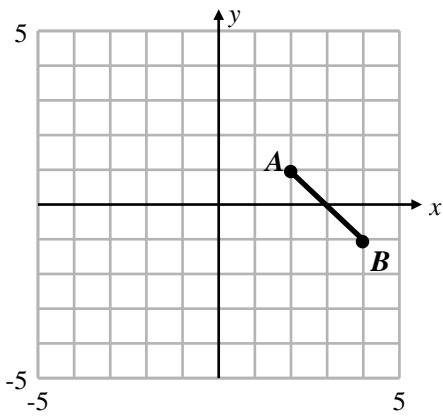
$$\overline{M'Y'} \cong \underline{\hspace{1cm}}, \overline{Y'T'} \cong \underline{\hspace{1cm}}, \overline{T'O'} \cong \underline{\hspace{1cm}},$$

$$\overline{O'E'} \cong \underline{\hspace{1cm}}, \overline{E'S'} \cong \underline{\hspace{1cm}}, \overline{S'M'} \cong \underline{\hspace{1cm}}.$$

c) After reflection, translation and rotation:

$$\angle M \cong \underline{\hspace{1cm}}, \angle Y \cong \underline{\hspace{1cm}}, \angle T \cong \underline{\hspace{1cm}},$$

$$\angle O \cong \underline{\hspace{1cm}}, \angle E \cong \underline{\hspace{1cm}}, \angle S \cong \underline{\hspace{1cm}}.$$



Sketch the graph of line segment $A'B'$ for each of the following transformations listed below, using line segment AB . *Draw the original shape and the newly transformed shape on each grid.*

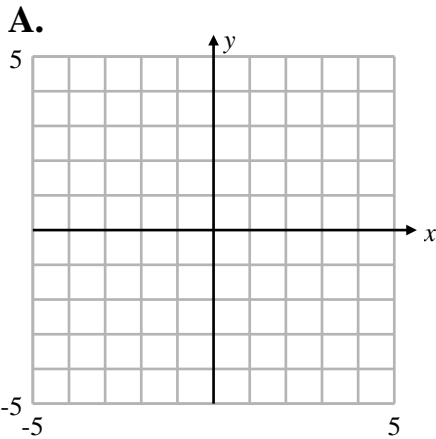
A. Reflect it over the x -axis

B. Reflect it over the y -axis

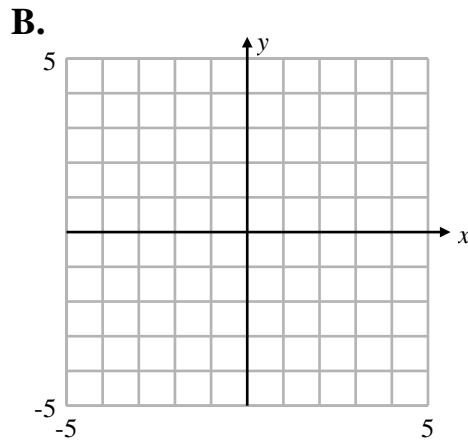
C. Translate it by $(-4, -2)$

D. Rotate it 180° counter clockwise about the origin.

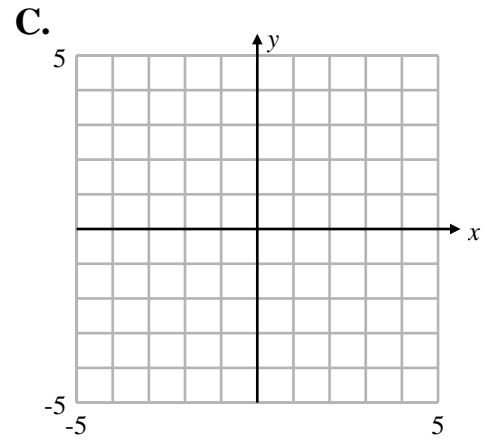
E. Rotate it 90° clockwise about the origin.



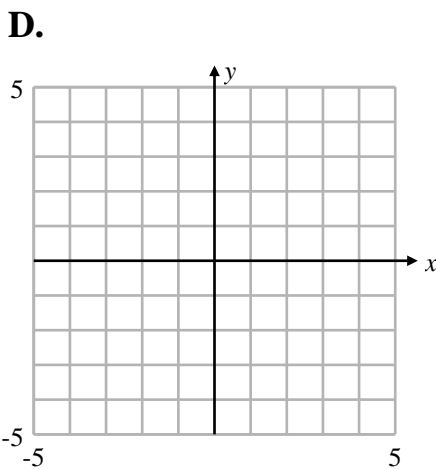
A _____ B _____
 A' _____ B' _____



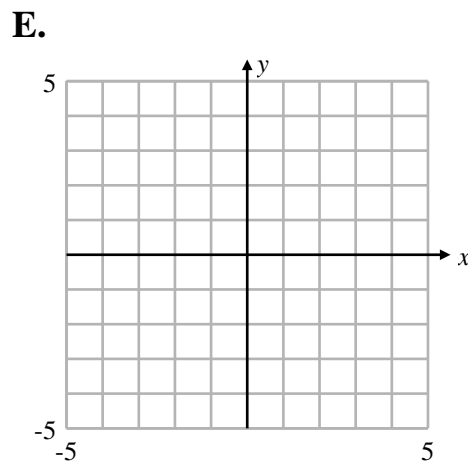
A _____ B _____
 A' _____ B' _____



A _____ B _____
 A' _____ B' _____



A _____ B _____
 A' _____ B' _____



A _____ B _____
 A' _____ B' _____

F.

a) After reflection, translation and rotation: $\overline{AB} \cong \underline{\hspace{1cm}}$.

b) After reflection, translation and rotation: $\overline{A'B'} \cong \underline{\hspace{1cm}}$.

c) Looking at the coordinates of the pre-image and image, identify one pattern that seems to occur during a transformation.