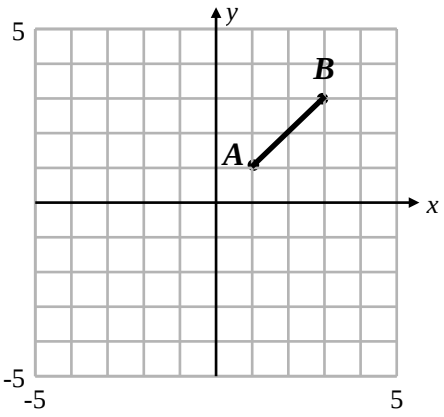
Name _____ Period_____ Date_____

Transformations #1



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**

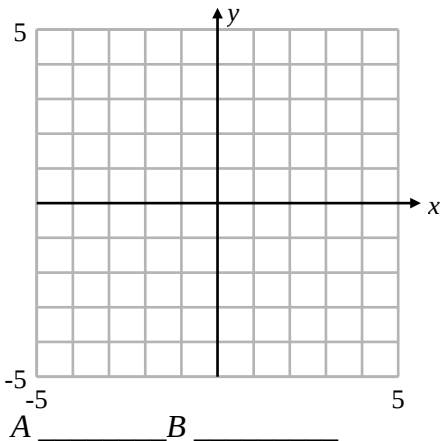
B. **Reflect it over the *y*-axis**

C. **Translate it by (-2, -3)**

D. **Rotate it 180º clockwise about the origin.**

E. **Rotate it 90º counter clockwise about the origin.**

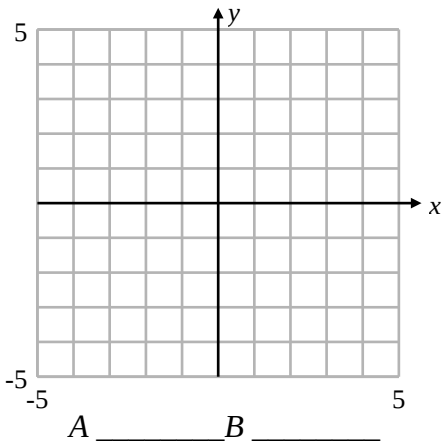
A.



A _____ B _____

A' _____ B' _____

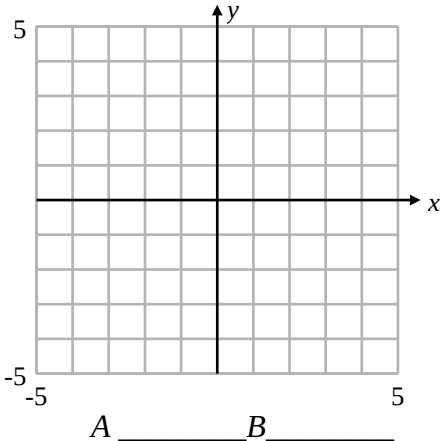
B.



A _____ B _____

A' _____ B' _____

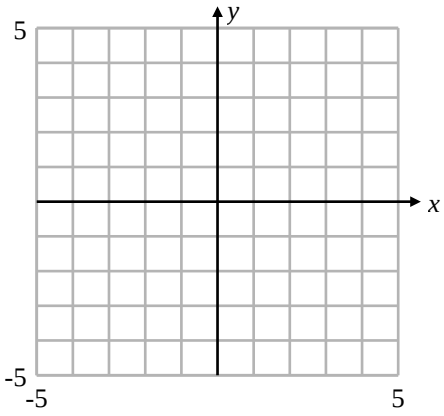
C.



A _____ B _____

A' _____ B' _____

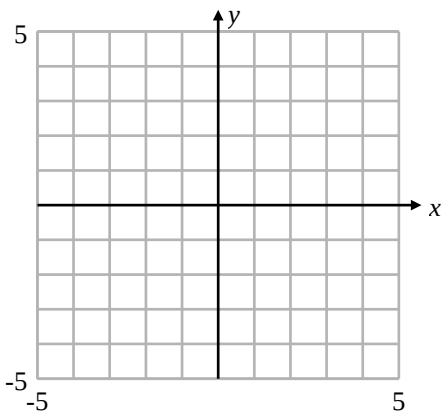
D.



A _____ B _____

A' _____ B' _____

E.



A _____ B _____

A' _____ B' _____

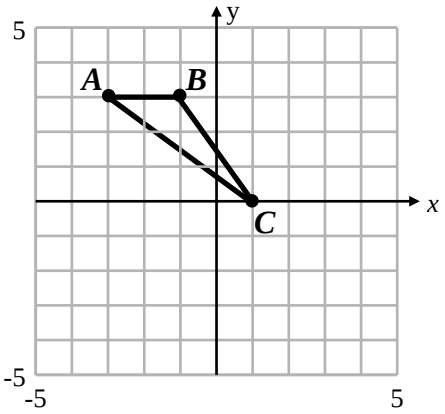
F.

a) After reflection, it appears that $\overline{AB}$ ***IS*** or ***IS NOT*** congruent to $\overline{A'B'}$.

b) After translation, it appears that $\overline{AB}$ ***IS*** or ***IS NOT*** congruent to $\overline{A'B'}$.

c) After rotation, it appears that $\overline{AB}$ ***IS*** or ***IS NOT*** congruent to $\overline{A'B'}$.

Transformations #1 (page 2)



Sketch the graph of $\Delta A'B'C'$ for each of the following transformations listed below, using the ΔABC. *Draw the original triangle and your newly transformed triangle on each grid.*

A. **Reflect it over the *x*-axis**

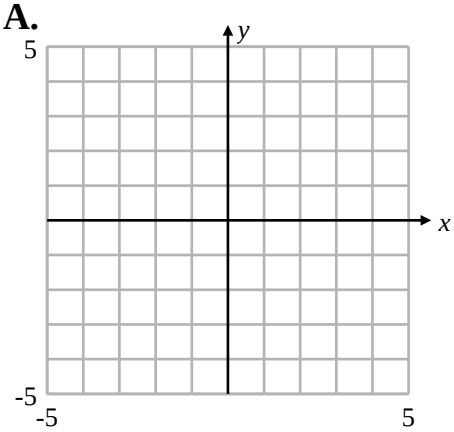
B. **Reflect it over the *y*-axis**

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

D. **Rotate it 180º counter clockwise about the origin.**

E. **Rotate it 90º clockwise about the origin.**

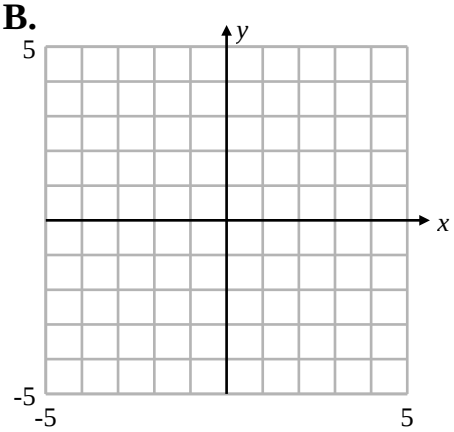
A.



A _____ *B* _____ *C* _____

A′ _____ *B′* _____ *C′* _____

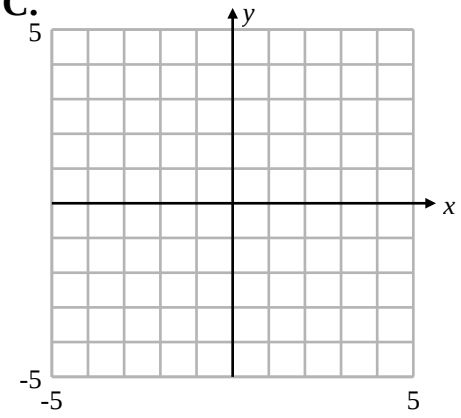
B.



A _____ *B* _____ *C* _____

A′ _____ *B′* _____ *C′* _____

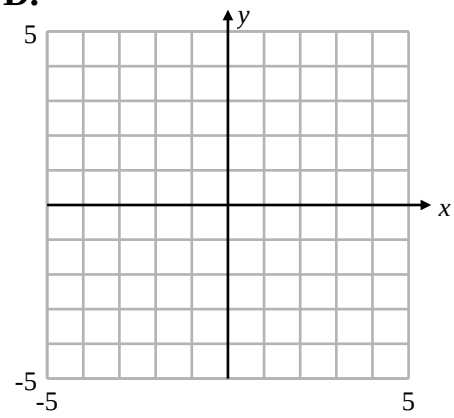
C.



A _____ *B* _____ *C* _____

A′ _____ *B′* _____ *C′* _____

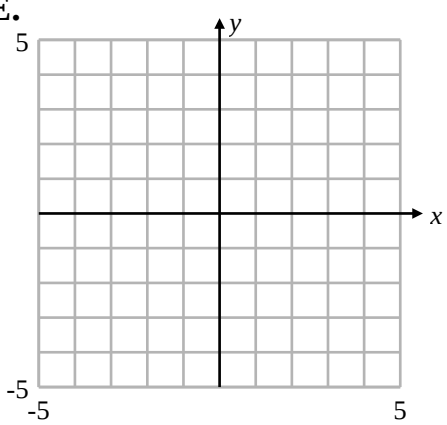
D.



A _____ *B* _____ *C* _____

A′ _____ *B′* _____ *C′* _____

E.



A _____ *B* _____ *C* _____

A′ _____ *B′* _____ *C′* _____

F.

a) After reflection, it appears that ΔABC ***IS*** or ***IS NOT*** congruent to $\Delta A'B'C'$.

b) After translation, it appears that ΔABC ***IS*** or ***IS NOT*** congruent to $\Delta A'B'C'$.

c) After rotation, it appears that ΔABC ***IS*** or ***IS NOT*** congruent to $\Delta A'B'C'$.