

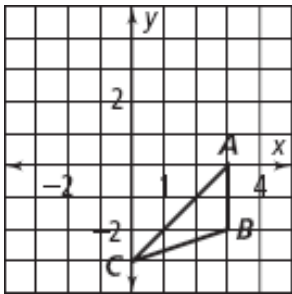
TRANSLATIONS

Tell whether the transformation appears to be a rigid motion. Explain.

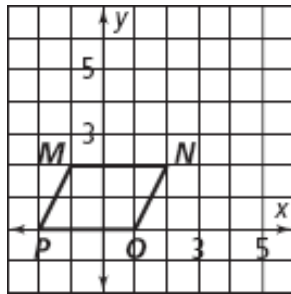


Graph the image of each figure under the given translation.

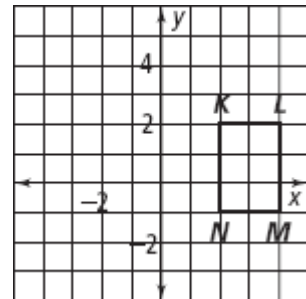
3. $T_{\langle -1, 4 \rangle} (\triangle ABC)$



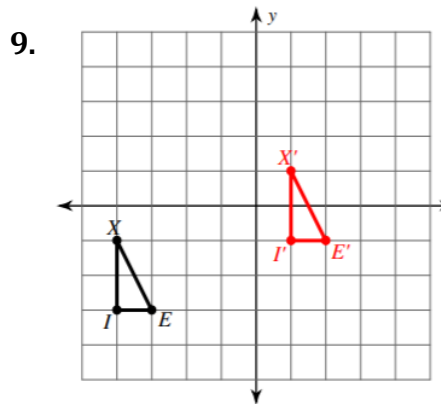
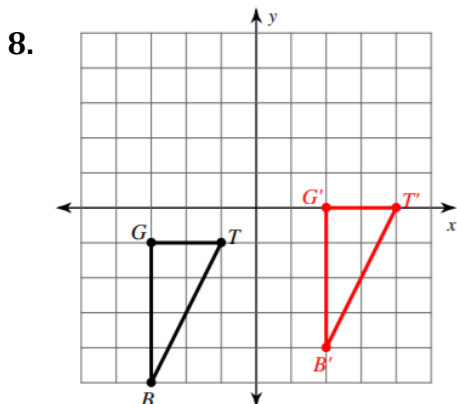
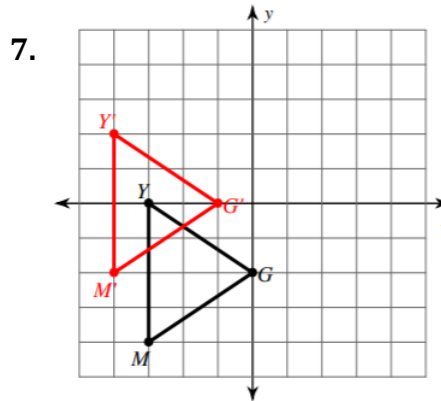
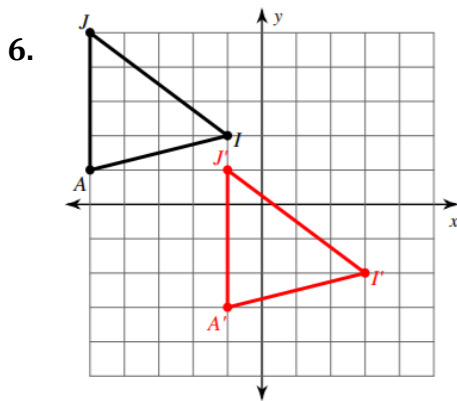
4. $T_{\langle 3, 3 \rangle} (MNOP)$



5. $T_{\langle -5, 1 \rangle} (KLMN)$



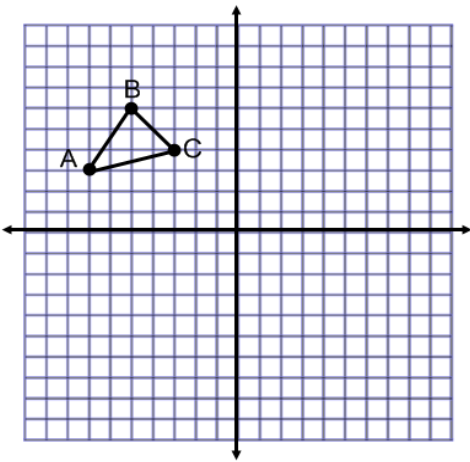
The preimage and image of a translation are shown. Describe the translation using function notation.



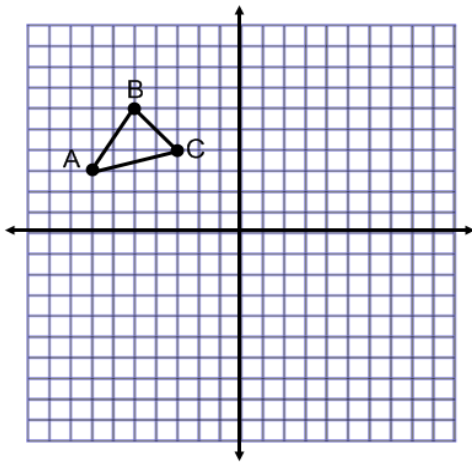
REFLECTIONS

Reflect each figure across the given line of reflection.

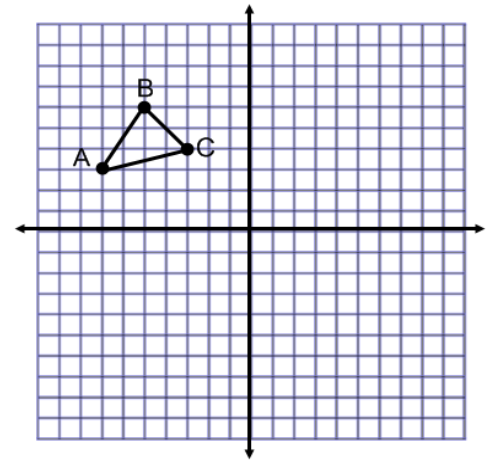
10. $R_{x\text{-axis}}(DABC)$



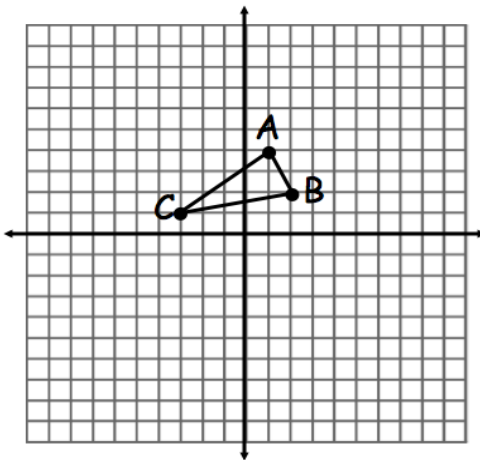
11. $R_{y\text{-axis}}(DABC)$



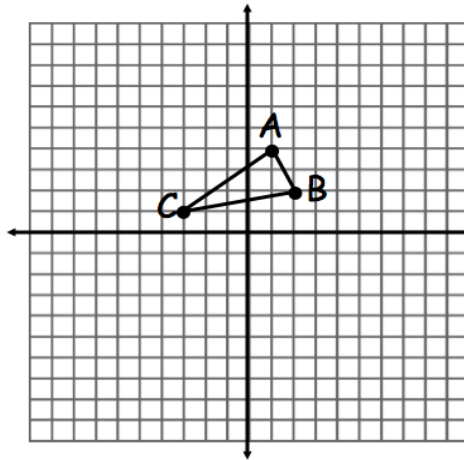
12. $R_{y=4}(\triangle ABC)$



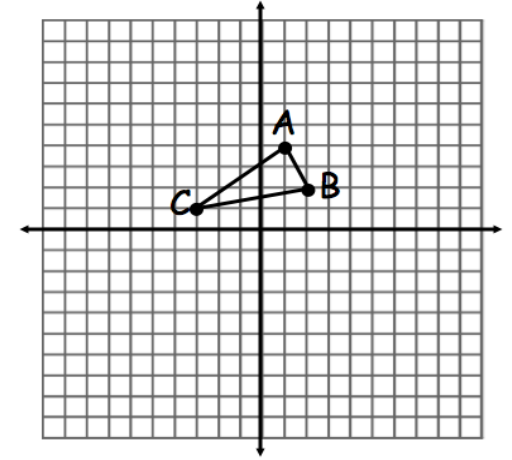
13. $R_{x\text{-axis}}(DABC)$



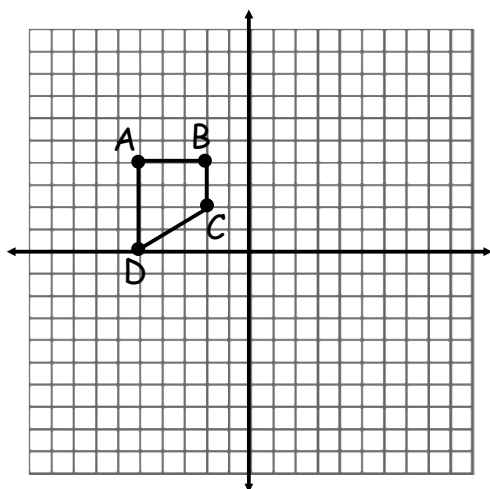
14. $R_{y\text{-axis}}(DABC)$



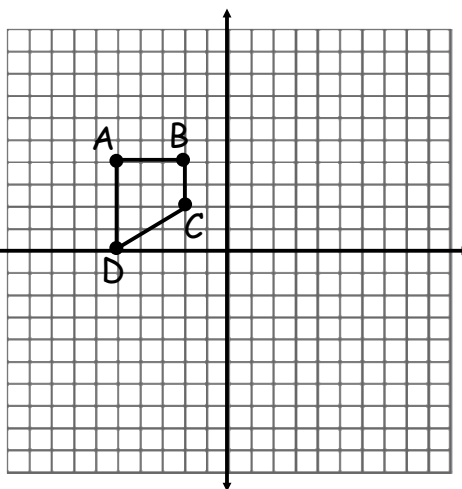
15. $R_{x=-3}(\triangle ABC)$



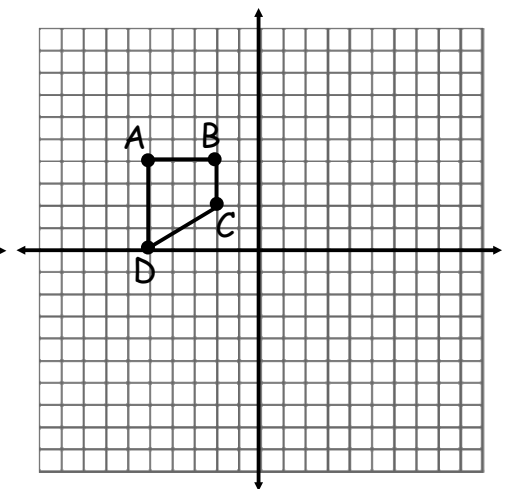
16. $R_{x\text{-axis}}(ABCD)$



17. $R_{y\text{-axis}}(ABCD)$

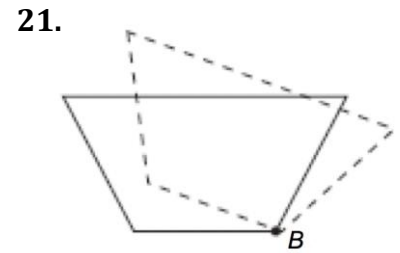
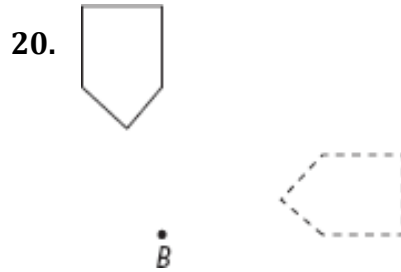
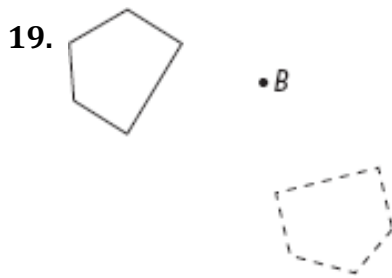


18. $R_{y=2}(ABCD)$

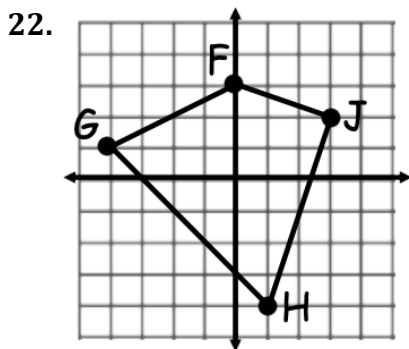


ROTATIONS

Find the angle of rotation about B that maps the solid-line figure to the dashed-line figure. Also, state if it is a clockwise or counterclockwise rotation.



Use the rules for rotations in the coordinate plane to draw each rotation.



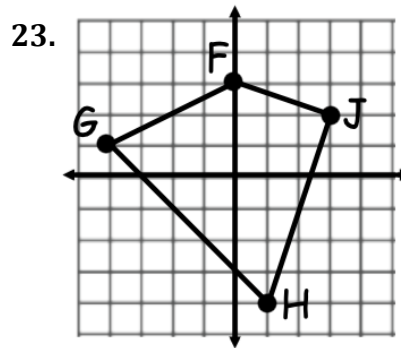
$$r_{(90^\circ, 0)}(x,y) = (-y, x)$$

$$G(-4,1) \rightarrow$$

$$F(0,3) \rightarrow$$

$$J(3,2) \rightarrow$$

$$H(1,-4) \rightarrow$$



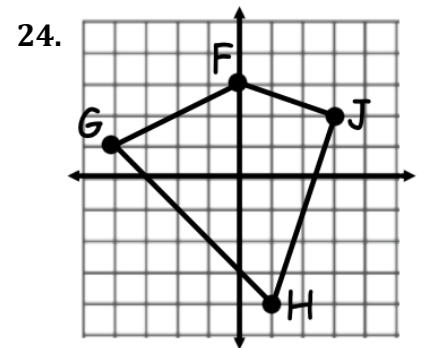
$$r_{(180^\circ, 0)}(x,y) = (-x, -y)$$

$$G(-4,1) \rightarrow$$

$$F(0,3) \rightarrow$$

$$J(3,2) \rightarrow$$

$$H(1,-4) \rightarrow$$



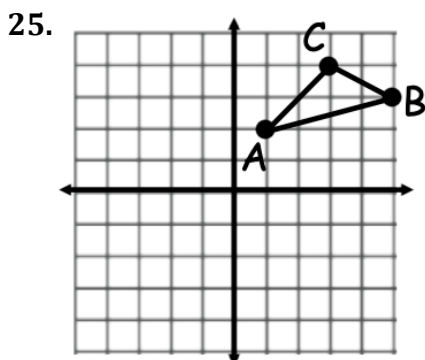
$$r_{(270^\circ, 0)}(x,y) = (y, -x)$$

$$G(-4,1) \rightarrow$$

$$F(0,3) \rightarrow$$

$$J(3,2) \rightarrow$$

$$H(1,-4) \rightarrow$$

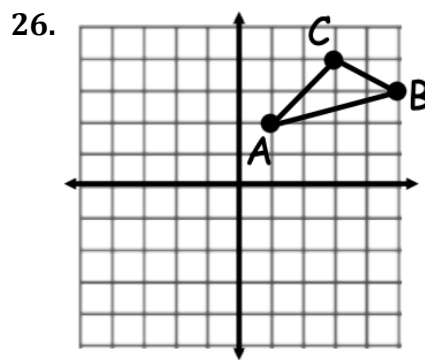


$$r_{(90^\circ, 0)}(x,y) = (-y, x)$$

$$A(1,2) \rightarrow$$

$$B(5,3) \rightarrow$$

$$C(3,4) \rightarrow$$

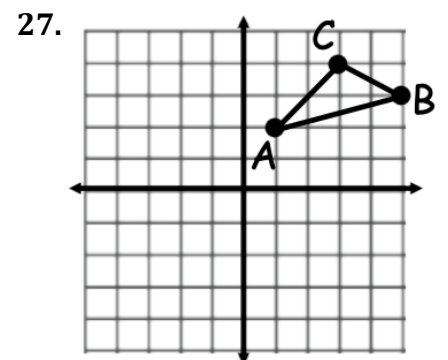


$$r_{(180^\circ, 0)}(x,y) = (-x, -y)$$

$$A(1,2) \rightarrow$$

$$B(5,3) \rightarrow$$

$$C(3,4) \rightarrow$$



$$r_{(270^\circ, 0)}(x,y) = (y, -x)$$

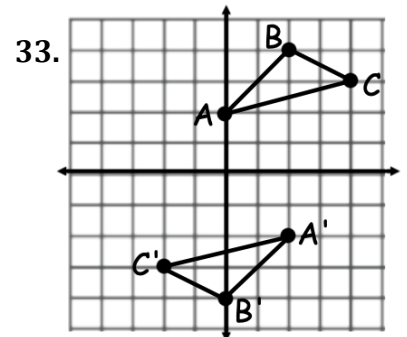
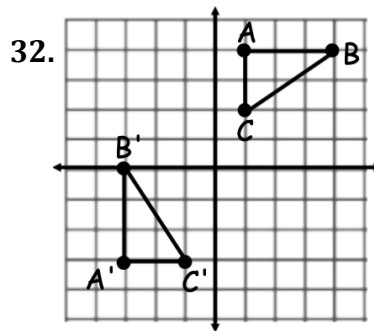
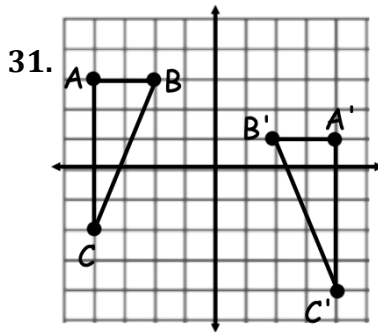
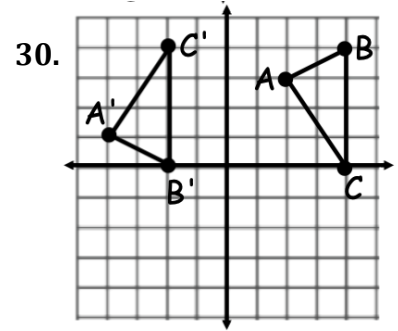
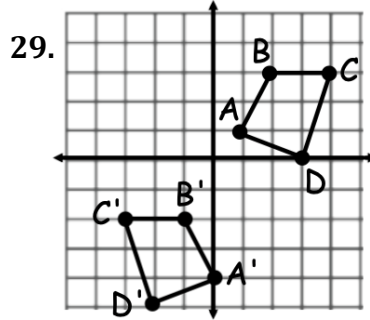
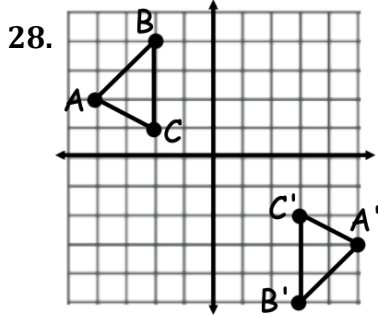
$$A(1,2) \rightarrow$$

$$B(5,3) \rightarrow$$

$$C(3,4) \rightarrow$$

CONGRUENCE TRANSFORMATIONS

Write a transformation or composition of transformations that maps the preimage onto the image.



Write a transformation or composition of transformations that would map Triangle ABC onto Triangle DEF.

