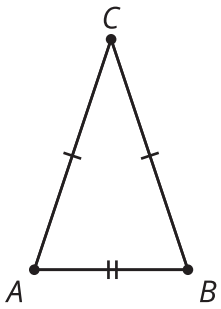
Check Your Readiness

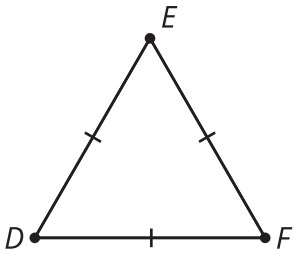
You may use a compass, a straightedge, and a protractor.

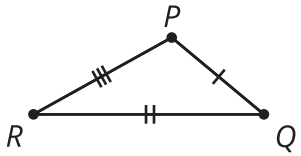
1 Label each diagram with its triangle type (equilateral, isosceles, scalene).

$\overline{AC} \cong \overline{BC}$



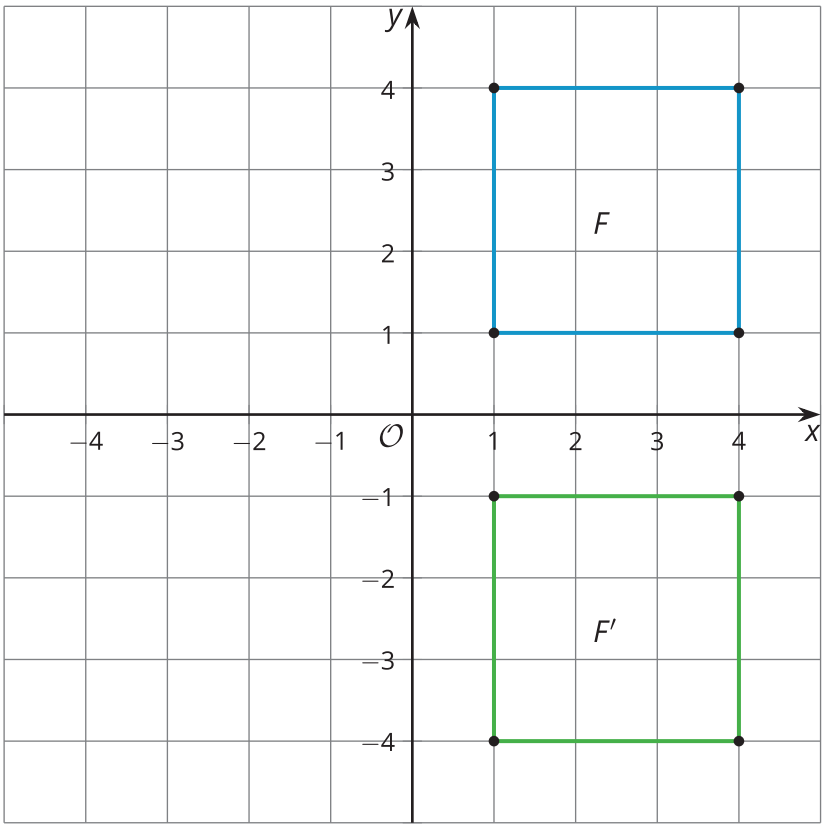
$\overline{ED} \cong \overline{DF} \cong \overline{FE}$





2 Draw a rectangle. Explain how you know your shape is a rectangle.

3 Select **all** transformations that take figure F to figure F'.



A. Reflect figure F across the x-axis.

B. Reflect figure F across the y-axis.

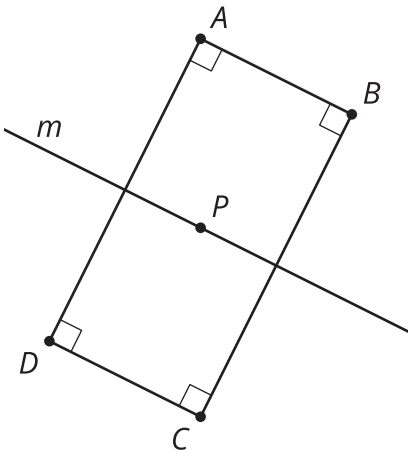
C. Rotate figure F 90 degrees clockwise around the origin.

D. Rotate figure F 180 degrees counterclockwise around the origin.

E. Translate figure F so that $(4, 1)$ goes to $(4, -1)$.

F. Translate figure F so that $(1, 4)$ goes to $(1, -1)$.

4 Select **all** transformations that take rectangle $ABCD$ onto itself.



A. Rotate by 90 degrees clockwise using center P.

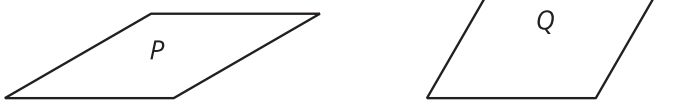
B. Rotate by 180 degrees clockwise using center P.

C. Reflect across line m.

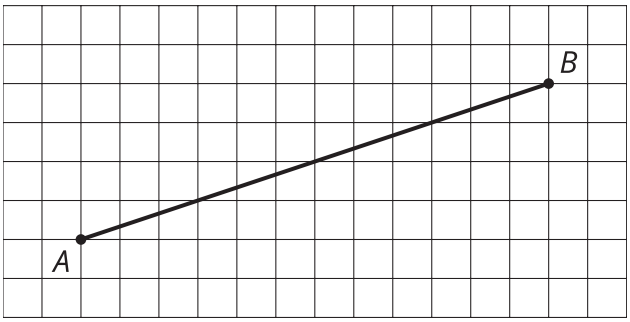
D. Reflect across diagonal AC.

E. Translate by the directed line segment from A to B.

5 Is there a rigid transformation taking Rhombus P to Rhombus Q? Explain how you know.



6 Bisect segment AB by plotting the midpoint.



7

a. Draw the image of quadrilateral $ABCD$ after a translation that takes A to A'. Label the image $A'B'C'D'$.

b. Draw the image of quadrilateral $ABCD$ after a rotation 90 degrees clockwise around the origin. Label the image $A''B''C''D''$.