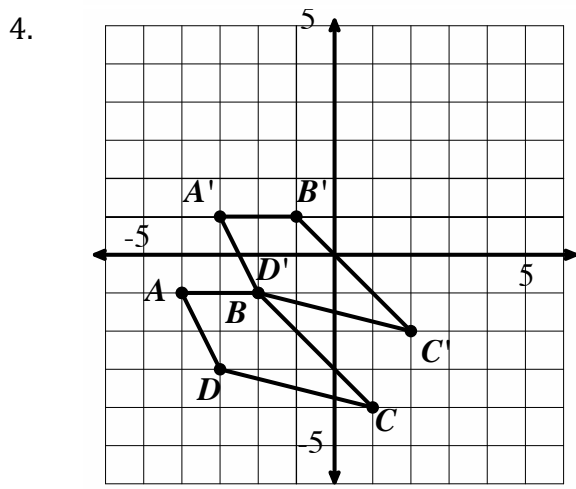
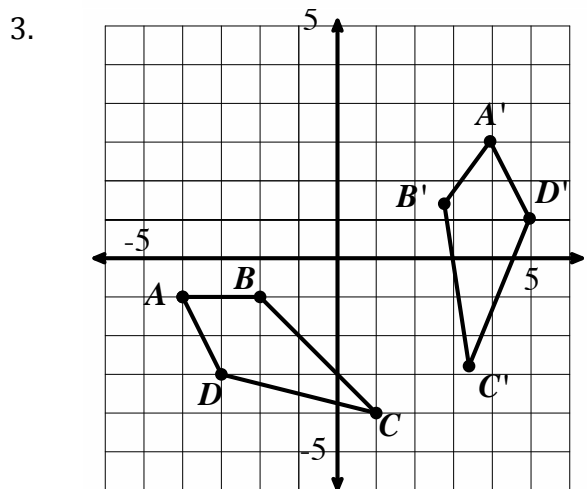
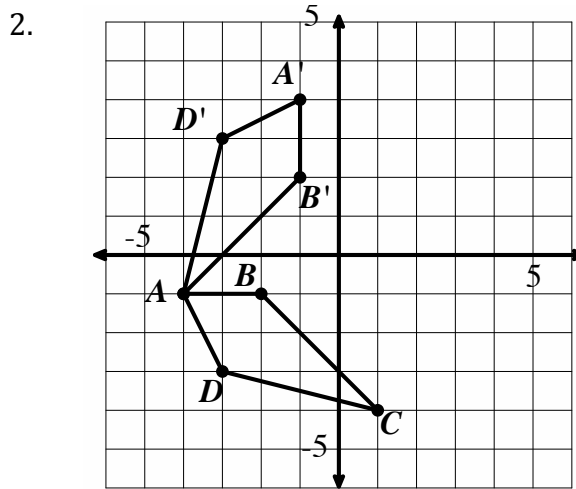
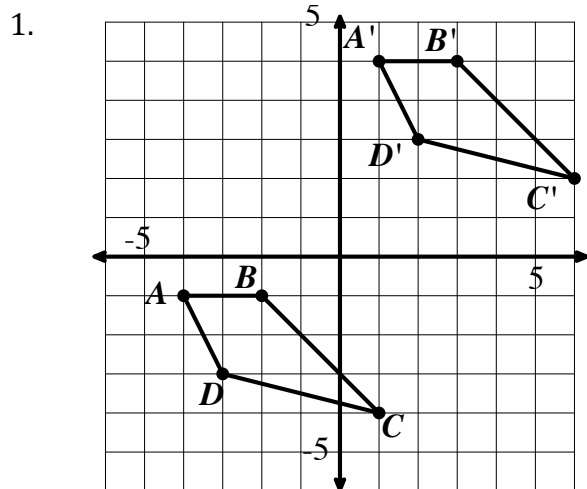


Mod 6 Transformations Review

Matching I - Match each image with the transformation that has taken place. (G.CO.4)



(A) Reflect across $y = -2x + 1$

(B) $f(x,y) \rightarrow (x+5, y+6)$

(C) Rotate 90° Clockwise around the point $(0, 0)$

(D) $f(x,y) \rightarrow (x+1, y+2)$

5. What transformations preserve distance and angles between the image and pre-image?

6. What transformations DO NOT preserve distance and angles between the image and pre-image?

7. Given the line $y = \frac{3}{4}x - 2$, which of the following lines would be parallel to the line?

a. $y = \frac{4}{3}x - 2$

b. $y = \frac{3}{4}x + 5$

c. $y = -\frac{4}{3}x - 5$

d. $\frac{3}{4}x - 2y = 5$

8. Given the line $y = \frac{3}{4}x - 2$, which of the following lines would be perpendicular to the line?

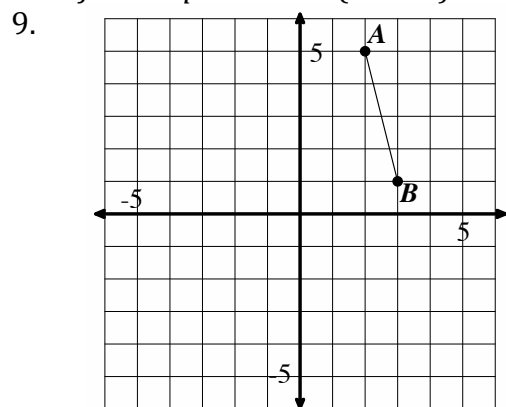
a. $y = \frac{4}{3}x - 2$

b. $y = \frac{3}{4}x + 5$

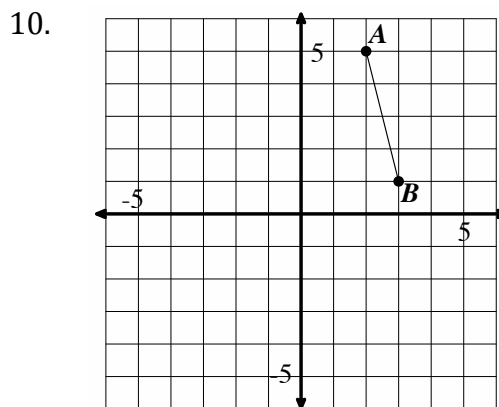
c. $y = -\frac{4}{3}x - 5$

d. $\frac{3}{4}x - 2y = 5$

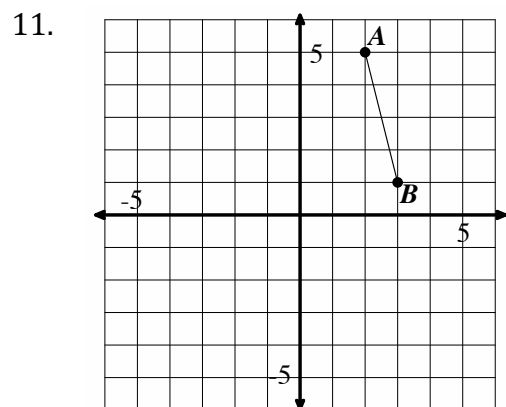
Perform the requested transformation. *If you transform point A, make sure you label the transformed point as A'.* (G.CO.5)



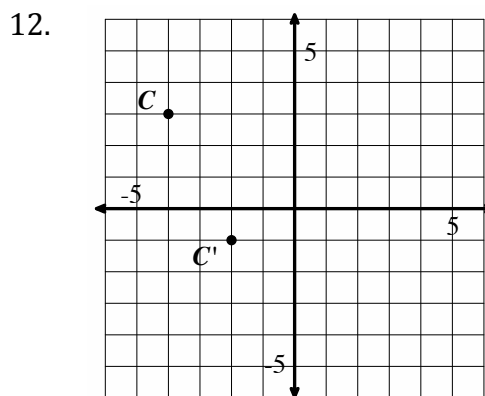
$f(x,y) \rightarrow (x-4, y-3)$



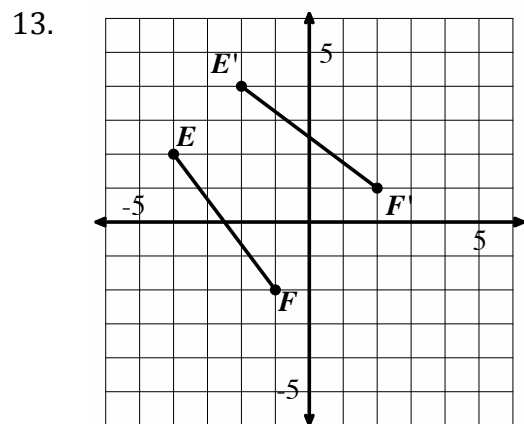
$f(x,y) \rightarrow (x+2, y-5)$



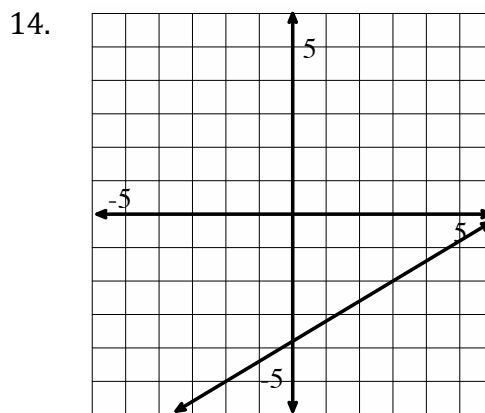
Rotate the line segment AB 90° counter-clockwise around the point (1, 1)



Clearly draw the line of reflection on the graph above. Write the equation of the line.

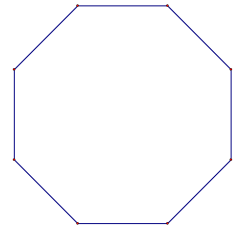


Clearly draw the line of reflection on the graph above. Write the equation of the line.



Graph a perpendicular line to the one shown above. Write the equation of both lines.

15. List **all** the angles of rotation up to 360° that will carry the figure onto itself. (G.CO.3)



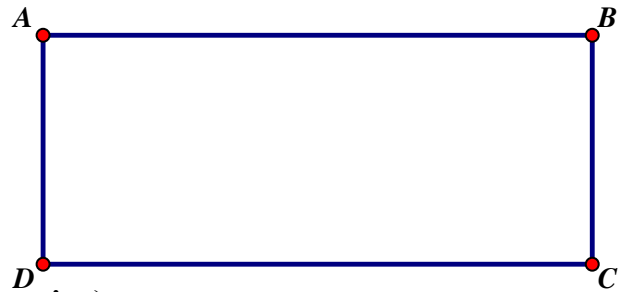
16. On the figure above, draw the lines of reflection (symmetry) that carry the figure onto itself.

17. How many lines of reflection (symmetry) are there? (G.CO.3)

For questions 16-18 use the rectangle.

18. **Draw and label** the lines of symmetry and the Diagonals on the rectangle

19. Using transformations, justify why $\overline{AB} \cong \overline{CD}$ (**Be specific, reflections are defined by lines, rotations are defined by centers and degrees of rotation**)



20. Using transformations, justify why diagonal \overline{BD} and \overline{AC} are congruent. (**Be specific, reflections are defined by lines, rotations are defined by centers and degrees of rotation**)

For questions 19-21 use the rhombus.

21. **Draw and label** the lines of symmetry and the diagonals on the rhombus.

22. Using transformations, justify why $\angle A \cong \angle C$ (**Be specific, reflections are defined by lines, rotations are defined by centers and degrees of rotation**)

