

Assignment

Name _____ Date _____

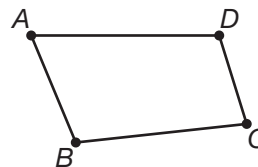
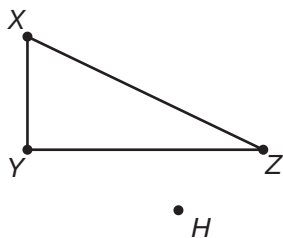
Good Lighting Rotations

The statements below summarize reflections in the coordinate plane. Complete each statement.

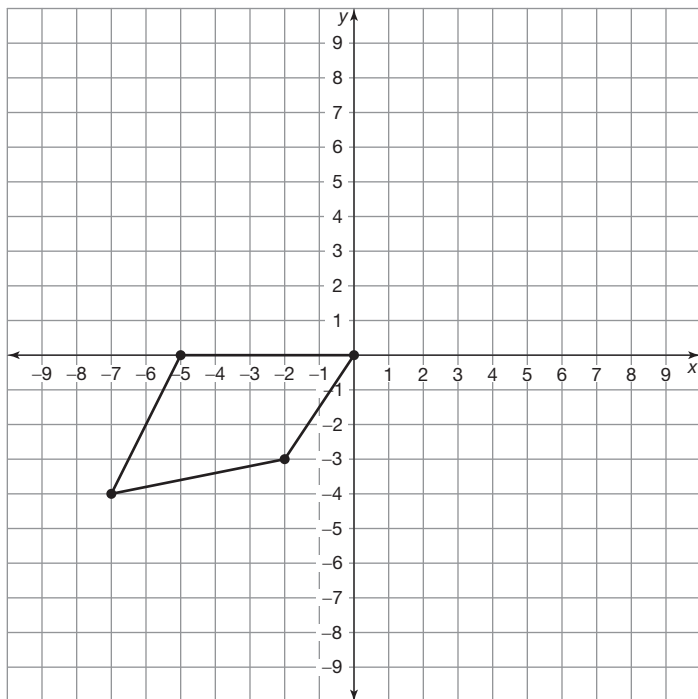
1. If a preimage point (x, y) is reflected in the _____, then its image point is $(x, -y)$.
2. If a preimage point is reflected in the y -axis, then its image point is _____.
3. If a preimage point (x, y) is reflected in the line _____, then its image point is (y, x) .

Apply the procedure that you used in class to rotate each figure by using a compass and protractor.

4. Rotate 75° counterclockwise about point H .
5. Rotate 135° clockwise about point D .

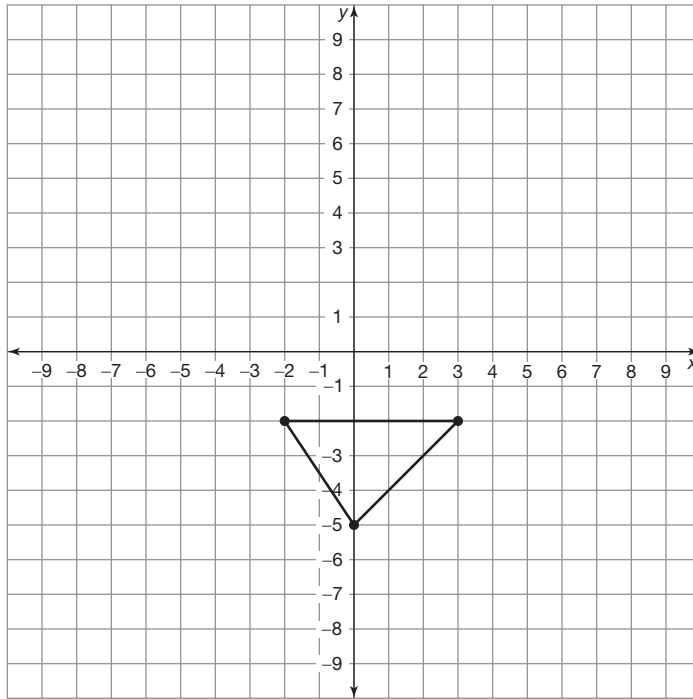


6. On the coordinate grid below, label the vertices of the quadrilateral and give the coordinates of each of the vertices.



7. Rotate the figure 90° counterclockwise about the origin.
8. List the vertices of the image and give the coordinates of its vertices. Then label the image with these coordinates.
9. What can you generalize about the transformation of the preimage points under this rotation?

10. Label the vertices of the triangle. Then rotate the triangle 180° about the origin.



11. Use the notation from the book to list the coordinates of the vertices of the image. What do you notice about the mapping?