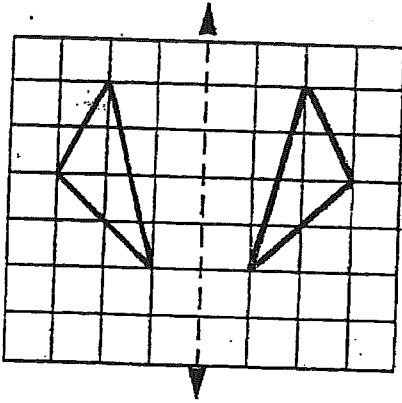


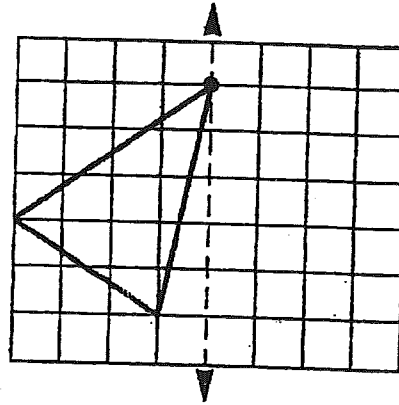
Exploring Reflections, Rotations, and Symmetry

Draw each transformation.

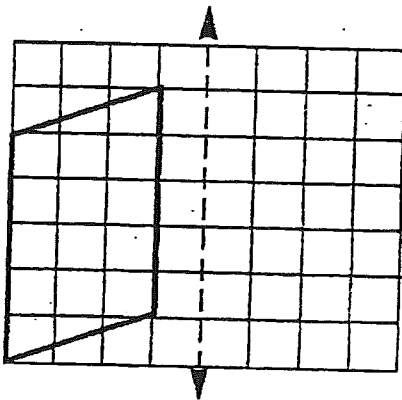
1. Reflect the triangle.



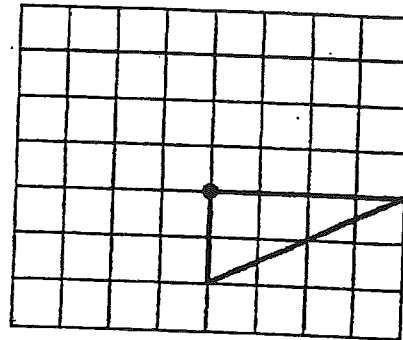
2. Reflect the triangle.



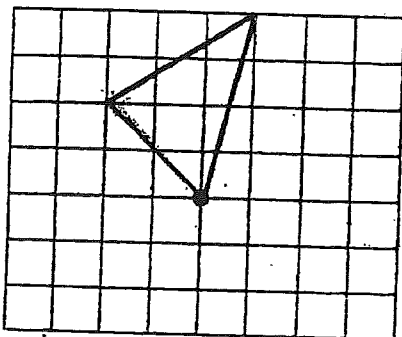
3. Reflect the parallelogram.



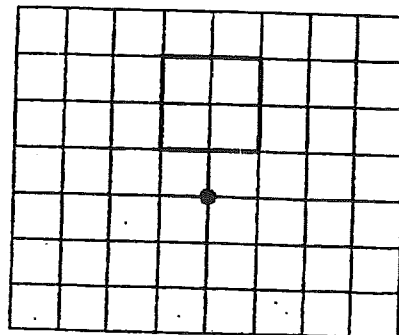
4. Rotate the triangle
- $\frac{1}{4}$
- turn counterclockwise around the point.



5. Rotate the triangle
- $\frac{1}{4}$
- turn clockwise around the point.

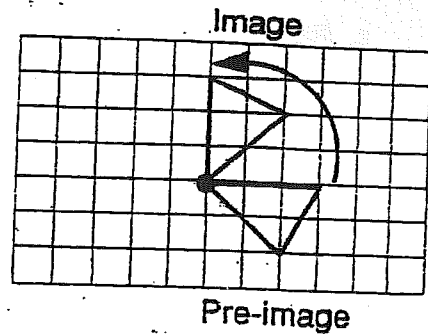
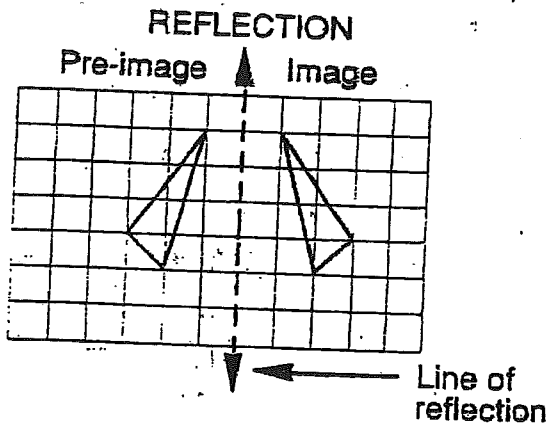


6. Rotate the square
- $\frac{1}{2}$
- turn clockwise around the point.



Exploring Reflections, Rotations, and Symmetry

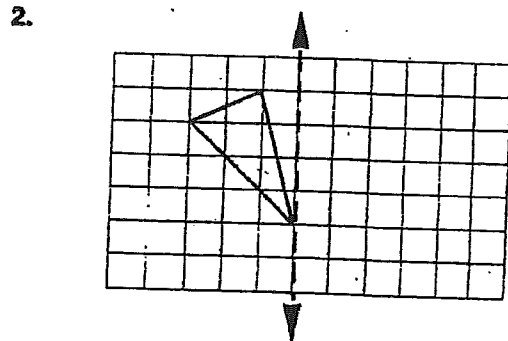
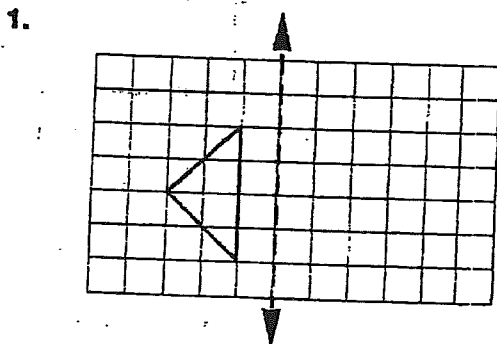
Use with text pages 188-189.



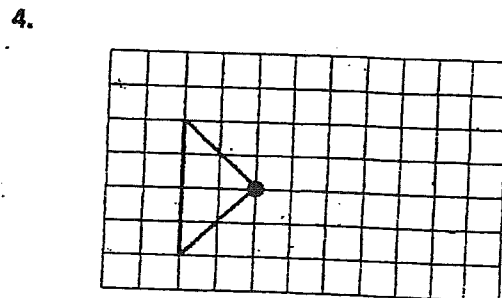
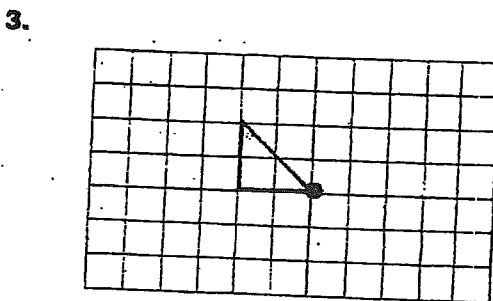
A reflection is like an image in a mirror. To draw the image, first draw the image of each vertex point. Then connect the points to form the polygon.

In a rotation, each point moves around the center of rotation (●). To draw the image, first draw the image of each vertex point. Then connect the points to form the polygon.

Draw a reflection of each triangle.



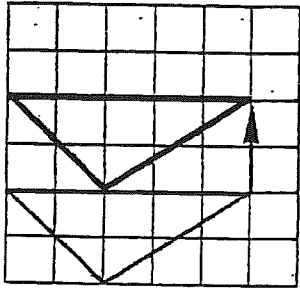
Rotate each triangle $\frac{1}{4}$ turn counterclockwise.



Exploring Translations

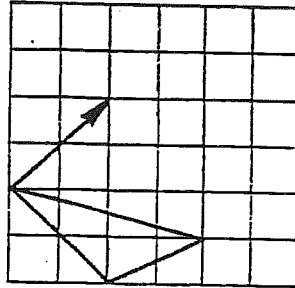
Follow the arrows to translate each pre-image into its image. Then give the translation rule for each drawing.

1.

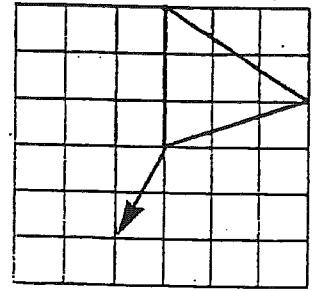


up 2

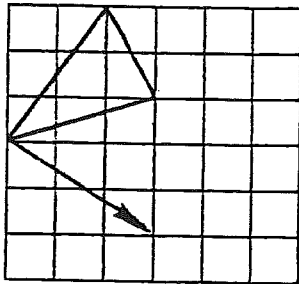
2.



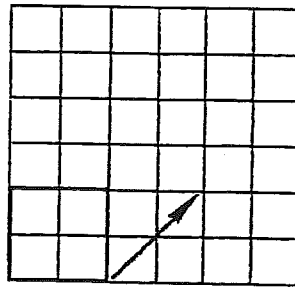
3.



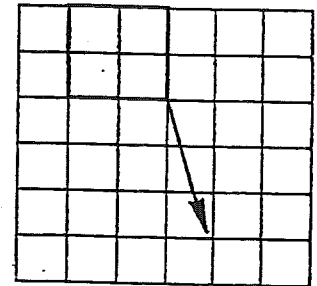
4.



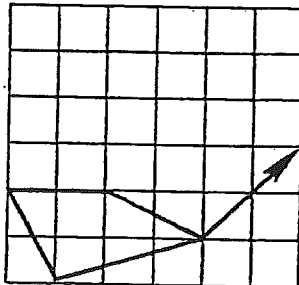
5.



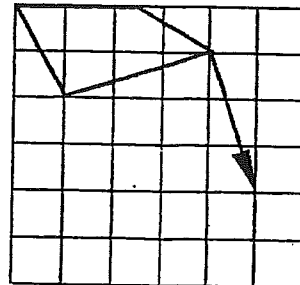
6.



7.



8.



9.

