6686

Reflections

Introduction

In this activity, students investigate reflections on a coordinate grid.

Grades 6-8

NCTM Geometry Standards

- Apply transformations and use symmetry to analyze mathematical situations
- Describe sizes, positions, and orientations of shapes under informal transformations such as flips, turns, slides, and scaling

Files/Materials Needed

Reflect Circle Over X.act, Reflect Hexagon Over X.act, Reflect Triangle Over X.act, Reflect Rectangles Over X.act, Reflect Square Over Y.act, Reflect Trapezoid Over Y.act, Reflect Triangle Over Y.act

1

a. Launch TI-Navigator™ on the computer and start the session.
b. Have each student log into NavNet on their calculator.

2

a. Load one of the activity settings files. This sets up the Activity Center so that the students will have a figure and a reflection line. Students will also be able to view a grid in Activity Center on the teacher's computer.
b. Click **View** and select **Individualize Student Cursors** from the dropdown menu.
c. Have students move their cursor to a point on the figure tell them to mark it. Remind students that every point on the figure will be reflected, not just the vertices.
d. Now instruct students to mark the location of the reflection of their point. If the class size is large and the window is very busy, tell students to use their own calculator screen to track the movement of their individual cursors.

3

a. After students are done submitting their points, click on the **List-Graph** tab.
b. Sort by *Display Name* so that each pair of points (original point and reflected point) is grouped together.
c. Highlight two points at a time to discuss if the answer is correct or incorrect.
d. You can also discuss the patterns between sets of points and what rule can be applied to map the original point to its reflected image.
e. Repeat with other activity settings files.

Extension

4

Use these figures to talk about slides and rotations, or even combinations of reflections, slides, and rotations.