

Coordinate Grid: Lines of Reflection

The interactive white board tool for this lesson can be found on our website under Resources and Teacher Tools. (www.dreambox.com/teachertools)



In this DreamBox lesson, students are given a polygon and a line of reflection. Using a variety of methods, students will determine ordered pairs that identify the reflected polygon. Students will begin by entering the coordinates of the new ordered pairs. As each ordered pair is entered, it appears on the coordinate grid.

Sample Lesson

Objective: Students will create a new polygon by reflecting the original polygon over the line of reflection.

Background: Students will need background knowledge of the coordinate grid, how to plot an ordered pair, and lines of reflection.

- Instruction:**
1. Open the lesson on an interactive whiteboard and have the student discuss a process of how to reflect the polygon over the line of reflections.
 2. After a few minutes, have a student create the first ordered pair of the reflected polygon and explain the strategy they used.
- Possible responses:
- a) You can count the number of spaces the point is away from the line of reflection and count the same number on the other side of the line.
 - b) You can count the number of spaces the ordered pair is from the line of reflection and add it to the x-coordinate or the y-coordinate (depending on if the line of reflection is horizontal or vertical).



**Some students may even talk about taking short cuts to determine ordered pairs once the first few have been identified. They will be talking about the ordered pairs with the same x or y-coordinate.

3. Continue this process with different students until all ordered pairs of the reflected image have been identified.

4. At this point, students will be able to see if any of the ordered pairs are incorrect. If they are, give them opportunity to identify the mistake and make corrections.
5. Click the check button and continue to the next problem. Repeat the above process giving all students a chance to participate at least once.