Lesson 7 Teaching Portal Materials

Episode Supports

Episode 6: Exploring

Episode Description

Sasha and Keoni use what they know about special points to explain why increasing the *p*-value results in the parabola getting wider on the coordinate grid.

Focus Questions

For use in a classroom, pause the video and ask these questions:

- 1. [Pause the video at 1:06]. What are Sasha and Keoni saying about the coordinates of a special point on the parabola? Do you agree? Why or why not?
- 2. [Pause the video at 2:36]. Keoni says "it increases more." What is increasing more?

Supporting Dialogue

Provide opportunities for students to revoice a mathematical proposition. Ask a few students to revoice the proposition of this episode:

• Revoice Keoni and Sasha's proposition that uses the special point to explain why increasing the *p*-value results in a wider parabola on the coordinate grid.

Math Extensions

- 1. In this lesson, several arguments are made to justify why increasing the *p*-value results in a change in the width of the parabola. Write down each of these justifications.
- 2. How are the arguments similar? How are they different? Do you prefer one justification more than another? Explain.

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