

## Lesson 7 Teaching Portal Materials

### Episode Supports

#### Episode 3: Reflecting

##### Episode Description

Keoni and Sasha reflect on why increasing the  $p$ -value results in a wider parabola. They engage in algebraic reasoning to support their argument.

##### Focus Questions

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

1. [Pause the video at **1:03**]. How did Sasha get the equation  $y = \frac{1}{p}$ ?
2. [Pause the video at **2:17**]. What does a smaller  $y$ -value have to do with the shape of the graph?

##### Supporting Dialogue

Provide opportunities to revoice the mathematical ideas of others:

- Revoice what Sasha and Keoni noticed and justified about how a change in the  $p$ -value impacts the  $y$ -value of a coordinate with a fixed  $x$ -value.
- Revoice what Sasha and Keoni noticed and justified about how a change in the  $p$ -value impacts the shape of a parabola.

##### Math Extensions

1. Find the coordinates of points on each of the three parabolas when the  $x$ -value is 1.5.
2. Considering the ordered pairs that you found, what do you notice about the  $y$ -values when the  $p$ -value increases? How does that impact the shape of the parabola?

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