# Lesson 8 Teaching Portal Materials

## Episode Supports

### Episode 3: Reflecting

**Episode Description**

Keoni and Sasha reflect on the similarities and differences of the equations for two parabolas that have the same *p*-values. One parabola has a vertex at (0, 0) while the other parabola has a vertex at (0, 7).

**Focus Questions**

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

1.  [Pause the video at **0:40**]. Where did the equation $y = \frac{x^2}{12}$ come from?

2.  [Pause the video at **1:32**]. Where is the -7 in the diagram? Can someone come show us where it is in the diagram?

**Supporting Dialogue**

Provide opportunities to revoice the mathematical ideas of others:

*   Revoice what Sasha and Keoni noticed about what is the same and what is different about the two equations.

*   Revoice what Sasha and Keoni said about why there is a -7 in the equation instead of a plus 7. How about someone else? Revoice what Sasha and Keoni and saying.

**Math Extensions**

1.  Use the **GeoGebra** applet to get a graph of a parabola with a *p*-value of 3 and a vertex at the point (0, 5). Use the method that Sasha and Keoni used in this episode to derive the equation of the parabola with a vertex at (0, 5).

2.  Use the methods used in this episode to derive the equation of this new parabola.

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