

## Lesson 9 Teaching Portal Materials

### Episode Supports

#### Episode 5: Reflecting

#### Episode Description

Sasha and Keoni look back on their work with a parabola with a  $p$ -value of 5 and a vertex of (9, 13). By reflecting on their work and the equation  $y = \frac{(x-9)^2}{4p} + 13$ , they see 13 their graph.

#### Focus Questions

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

1. [Pause the video at [1:13](#)]. Where is the 8 in the graph? Does any one see the 13 in the graph? Where is it?
2. [Pause the video at [1:43](#)] Can someone show me the 13 in the graph? How do you know that it is 13?

#### Supporting Dialogue

Invite students to engage in a pair-share activity as they respond to the focus question:

- With your partner, show where you can find 13 on the graph. Prepare your answers to share with the whole class.
- With your partner answer extend your answer to find  $13 + p$  on the graph. Prepare your answers to share with the whole class.

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## Math Extensions

1. What expression is easier for you to simplify? How are they different to you? How are they the same?

$$(y - 13 - p)^2$$

$$(y - (13 + p))^2$$

$$((y - 13) - p)^2$$

2. How are each of these expressions present in the Sasha and Keoni's graph?

