Teacher Supporting Materials For
Lesson 3 Episode 4: Repeating Your Reasoning

Episode Description

Keoni and Sasha determine the x-value of a point on the parabola with a y-value of 3.5.

Focus Questions

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

1. [Pause the video at **1:15**]. Sasha and Keoni are finding the x-value of a point on the parabola when the y-value is 3.5. Predict how they are going to solve for x. Is there another method that they could use?

2. [Pause the video at **3:50**]. Sasha just drew a segment on the x-axis. What does that segment represent?

Supporting Dialogue

Focus student attention on precision by asking them:

1. Sasha and Keoni write that b = 3.7, b^2= 3.7 and say that x = 3.7. What is 3.7 in this problem? Does is matter what we call it?

2. Sasha and Keoni found that when y is 3.5, that b is 3.7. Come up to the graph and show us where you see these values on the graph.

Math Extensions

1. Sometimes equations can have more than one variable. Solve the equation below for x. Solve the equation for y. Which is easier?

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Learning through dialogue

$$x^2 + (y - 3)^2 = 25$$

2. Are there some values of (x,y) that you can see that will or will not satisfy the equation without solving for x or y? What are your strategies?