Session Four
Conceptualizing and Representing Linear Relationships

Transcript: Growing Dots 1 Lesson, Period 3
Working Backward

[3 minutes]

27:20 Kirk: OK, can I get somebody from this group back here, can you tell us at how many minutes would your pattern have twenty-five dots.

27:30 Student: six.

27:32 Kirk: Can you show us how you got that? Explain how you got that? Somebody in your group? How many agree with the six minutes? Show of hands. The class does agree with you.

27:53 Irma: I'll do it. In the twenty-five dots you got six minutes because we subtracted one and divided it by four, because to get twenty-five dots you had to add four. I mean add one and times it by four, so we did it.

28:13 Irma: We did the other way to find out the answer.

28:22 Kirk: Everybody understand that? Good job, Irma.

28:26 Student: I heard somebody say [*inaudible*].

28:27 Kirk: Can I get somebody to explain maybe a different way that you got six, or did you guys all do it that way? OK, Junior? Did you have another way or did you [inaudible].

28:38 Junior: I did it on my graph.

28:49 Kirk: OK, we have a graphic way which we do want to talk about.

28:56 Kirk: Let's do that in just a second. Seventy-three dots.

29:03	**Student:**	Eighteen minutes.
29:04	**Kirk:**	Seventy-three dots. Randy?
29:06	**Randy:**	Eighteen.
29:07	**Kirk:**	OK, explain how you got eighteen.
29:09	**Randy:**	Because what times four equals [*equals a number plus one*].
29:15	**Kirk:**	What times four . . .
29:17	**Randy:**	It would be like eighteen times four plus [*plus one*].
29:20	**Kirk:**	OK.
29:22	**Kirk:**	And ninety-nine dots.
29:27	**Cameron:**	Twenty-four point five.
29:29	**Cameron:**	I plugged in the ninety-nine for y, and then I subtracted the one from both sides, and then I divided the ninety-eight by four, and I got twenty-four point five.
29:44	**Kirk:**	Who else got twenty-four point five?
29:46	**Student:**	About half of us.
29:50	**Kirk:**	OK.
29:54	**Kirk:**	Is this an expression or an equation?
29:56	**Junior:**	Expression.
29:58	**Kirk:**	It's an expression. However, Greg, you need to pay attention, Jason.
30:04	**Kirk:**	We're really turning this expression now into an equation, because I told what the expression was now equal to. I said, if it equals twenty-five dots, we really now have an equation.
30:19	**Kirk:**	And equations can be solved. What Irma said, you know, is true. She said I subtracted one and divided by four. Does that sound familiar when we've been solving for x?
30:31	**Kirk:**	Undoing. You know, doing the opposite, that sort of thing?