Session Five

Conceptualizing and Representing Linear Relationships

Transcript: Growing Dots 2 Lesson, Period 4

Indexing

[6 minutes]

33:07	**Kirk:**	The question has been posed. Sh. This dot sequence. Will any odd number of dots do?
33:17	**Student:**	Yes.
33:18	**Kirk:**	Why?
33:19	**Danielle:**	Because at the center and all the legs are even.
33:24	**LeeAnn:**	The one middle point. There's always going to be one in the middle.
33:28	**Kirk:**	Can you show me a three-dot drawing that would follow this pattern?
33:33	**LeeAnn:**	You can't.
33:35	**Kirk:**	Well, three is an odd number.
33:37	**LeeAnn:**	But there's not equal legs. Equal.
33:40	**Janelle:**	It's every other odd number.
33:41	**Kirk:**	It's every other odd, what do you mean by that?
33:43	**Janelle:**	Like five, nine . . . you skip the seven and the next one would be thirteen so you skip the eleven.
33:49	**Kirk:**	OK, so with that in mind, John, you guys. With that in mind, twenty-one, does twenty-one follow your every other odd pattern?

33:58	**Janelle/ LeeAnn:**	Yes.
34:01	**Kirk:**	So, are you saying that you will never have an even number of dots?
34:05	**Student:**	No.
34:06	**Kirk:**	According to this pattern . . .
34:07	**Student:**	Yes.
34:09	**Student:**	No.
34:10	**John:**	It depends on the equation.
34:11	**Kirk:**	It depends on the equation, according to John. Did anybody . . . with your equation?
34:18	**Kirk:**	Let's just take your equation at 100 minutes. Did anybody come up with an even number of dots at 100 minutes?
34:22	**Kirk:**	I mean maybe, you all have different equations. Raise your hand if you came up with an even number at let's say 100 minutes?
34:30	**Kirk:**	No . . . you guys did? We've got one group that did?
34:33	**Kirk:**	Where did you guys start?
34:34	**Javier:**	Negative, negative seven.
34:37	**Kirk:**	They started at negative seven.
34:39	**Brandie:**	How are you going to have a negative dot?
34:41	**Javier:**	That's what we were laughing about.
34:43	**Students:**	*[laughter]*.
34:44	**Kirk:**	Maybe you owe people dots.
34:47	**Brandie:**	Or maybe one dot just breaks into little pieces of dots.
34:51	**Kirk:**	Would a fraction of a dot be the same thing as a negative dot?
34:54	**Students:**	No.

34:55	**Brandie:**	I don't see why not.
34:57	**Kirk:**	OK, would you rather have a fraction of a dollar, or would you rather owe somebody a dollar?
35:02	**Students:**	A fraction of a dollar.
35:04	**Students:**	No.
35:05	**LeeAnn:**	You can't spend change.
35:07	**LeeAnn:**	You can't spend it if you don't have any.
35:11	**LeeAnn:**	If you have a fraction of a dollar, you still . . .
35:15	**Kirk:**	Let's see if negative seven is appropriate or not.
35:25	**Kirk:**	Um.
35:28	**Kirk:**	Let's do this. We did have a one, we had a five, we had a nine.
35:35	**Kirk:**	Let's see.
35:42	**Kirk:**	You guys were able to. You really started. Most people yesterday. I don't have you guys' attention here.
35:48	**Kirk:**	Um, yesterday we were talking about dots growing, positive numbers, whole numbers. Let's see if negative seven would be appropriate if we reverse the pattern. What would be next?
36:02	**Janelle:**	Negative three.
36:03	**Kirk:**	Negative three. How come it's negative three?
36:06	**Janelle:**	You subtract.
36:06	**Kirk:**	You're subtracting four.
36:07	**LeeAnn:**	Oh, so it would be negative seven.
36:09	**Kirk:**	So if they let time equal one at, negative seven, is that appropriate?
36:12	**Students:**	Yeah.

36:13	**Kirk:**	For this particular, sure. That would work for you guys. And you did come up with an even number? Well, I am curious what your equation. . . .
36:18	**Josue:**	We are working on our equation.
36:21	**Javier:**	We are still working on that.
36:22	**Kirk:**	Oh, OK.