Description: Ariel begins problem 4 Parent Tape: Early algebra: Investigating linear functions, Series 4 of 7: Guess My Rule problems 4 & 5 Date: 2005-11-03 Location: Frank J. Hubbard Middle School – Plainfield, NJ Researcher: Carolyn Maher Transcriber(s): DeLeon, Christina Verifier(s): Yedman, Madeline Date Transcribed: Spring 2013 Page: 1 of 3

| Line | Time | Speaker | Words Spoken |
|------|-------|---------|---|
| 1 | 00:00 | R1 | James and Ariel, come here. I have got another challenge for |
| | | | you |
| 2 | | Ariel | Oh, that's easy. I got it, I got it. No, I don't. [Ariel works on the |
| | | | problem] Ohhhh I got it. It goes add one. [Ariel writes |
| | | | something on his paper] I got it, but I don't know how to |
| | | | explain it. It's add one. Negative one goes to one, makes that. |
| | | | You add in one, wait a minute, no, no, oh yeah. Negative one |
| | | | is zero. This is one, this two, this is three, this is four (noting |
| | | | the difference between the y values). 0,1,2,3,4. [Ariel writes |
| | | | these numbers in between the y values] I'm done. Wait, um |
| | | | Miss? I'm done. |
| 3 | 01:13 | R1 | What's the rule? |
| 4 | | Ariel | It's going to keep on adding one to the y-axis thing. |
| 5 | | R1 | It's what? What is the rule? |
| 6 | | Ariel | l'm done. |
| 7 | | R2 | You're done already? |
| 8 | | Ariel | Yeah. |
| 9 | | R2 | Okay, write it down and explain why it works. And I'll be right |
| | | | there. |
| 10 | | Ariel | Oh, god. Lalalalala. [Ariel begins to sing to himself, while |
| | | | writing his solution on the paper] The next one would be |
| | | | eleven. |
| 11 | | R1 | When you did this, what did you mean by doing this? |
| 12 | | Ariel | Cause it goes from negative one to zero, and then one, and |
| | | | then two, and then three, and then four. Cause |
| 13 | | R1 | So negative one goes to zero? |
| 14 | | Ariel | Yeah, cause here No, that's wrong. I don't know that. But, I |
| | | | know this one. It goes one plus zero is one, two plus one is |
| | | | three, three plus two is five, four plus it keeps on adding one |
| | | | to the y. Got it. |
| 15 | | R1 | Add one to the y? |
| 16 | | Ariel | Yeah, add one to the y. No, like, to the number. For like, it |
| | | | goes, for every number it goes up like this is plus two. |
| 17 | | R1 | So, I say zero. What do you say? |
| 18 | 02:32 | Ariel | Negative one. |

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| 19 | | R1 | I say one, what are you going to say? |
|----|-------|-------|---|
| 20 | | Ariel | One, (inaudible). |
| 21 | | R1 | Two, what do you say? |
| 22 | | Ariel | Three. |
| 23 | | R1 | I say three, what do you say? |
| 24 | | Ariel | Five. |
| 25 | | R1 | Five. So what is the rule? |
| 26 | | Ariel | And I noticed a pattern, I noticed the pattern too. It go, plus |
| | | | two, plus two, plus two. What? [Ariel gets distracted by |
| | | | another person calling him] |
| 27 | | R1 | So, I get two to the number that I give you? |
| 28 | | Ariel | To the number that you give me, like depending on the |
| | | | number. Like with starting out with one you add zero. Two, |
| | | | you add one. Three, you add two. Four, you add three. Five, |
| | | | you add four. [Ariel says this while pointing at his paper] I'm |
| | | | right, you're wrong. What is you doing, James? You haven't |
| | | | even solved it all. |
| 29 | 03:24 | James | I already know it. |
| 30 | | Ariel | No, you don't. |
| 31 | | James | Plus five times one, I mean, plus five minus one. |
| 32 | | Ariel | The rule is plus four minus one. No, it's not. It's plus three |
| | | | minus one. No, it's not. I got it. I don't really know how to say |
| | | | it, like how I did the other ones. I know it's add one to the y. |
| | | | [Ariel points to the y column of the chart] |
| 33 | | R1 | Negative one Why did you write this zero next to one? [R1 |
| | | | points to the y value of 1] |
| 34 | | Ariel | Cause, it went in like I see it as a factory, this line. [Ariel |
| | | | points to the column line dividing the x and y columns] It goes |
| | | | in an x number, it comes out a y number. 1 came out still 1 so |
| | | | it must be it didn't do anything to it, so its 0. |
| 35 | 04:13 | R1 | Okay, so in this case, to this number, you didn't add anything. |
| | | | Okay. |
| 36 | | Ariel | Yeah. So, 2 went in and came out 3, is 1. 3 went in and its 2, |
| | | | cause it came out 5. It's adding, I just added these and I saw |
| | | | that that's how its going. Like here [Ariel begins to write the |
| | | | differences between the y values for his chart that weren't |
| | | | filled out before] This is: 5, 6, 7, 8, 9. There you go. |

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| 37 | | R1 | And here, its zero? What did you get for zero? [R1 points to |
|----|-------|-------|--|
| | | | Ariel's paper] |
| 38 | | Ariel | That, I still haven't figured out. I think it's zero plus negative |
| | | | one. Negative one. |
| 39 | | R1 | Zero plus negative one. |
| 40 | | Ariel | Yeah, it's negative one. That's what I think, I'm not really sure |
| | | | about that. |
| 41 | 05:14 | R1 | Okay, so you said that the rule is? |
| 42 | | Ariel | Add one to the y. I mean to the number, for like for how the |
| | | | number goes up you add one to what you're adding to. So, |
| | | | basically to the y. |
| 43 | | R1 | Add one, the rule would be add one to the y. |
| 44 | | Ariel | To the y. So, for every number [Ariel is writing this on his |
| | | | paper] |
| 45 | | R1 | What is the number that you are given first? |
| 46 | | Ariel | Oh, yeah. The funny thing is that I solved it right away. Ask |
| | | | him. I solved it like in two seconds. |
| 47 | 05:46 | Yonny | Yo, how the heck he be playing video games, when I want to |
| | | | play video games? But she said that we can't play no video |
| | | | games? |
| 48 | | R1 | So, what if I say to you, for example eleven, what would you |
| | | | come up with? |
| 49 | | Ariel | Eleven? |
| 50 | | R1 | Yeah. |
| 51 | | Ariel | It would be twenty-one. |
| 52 | | R1 | Twenty-one? Why? |
| 53 | 06:03 | Ariel | Eleven, twenty-one. Because if you follow this it would be 10 |
| | | | [Ariel gestures to his chart with the differences of the y values |
| | | | filled in] |