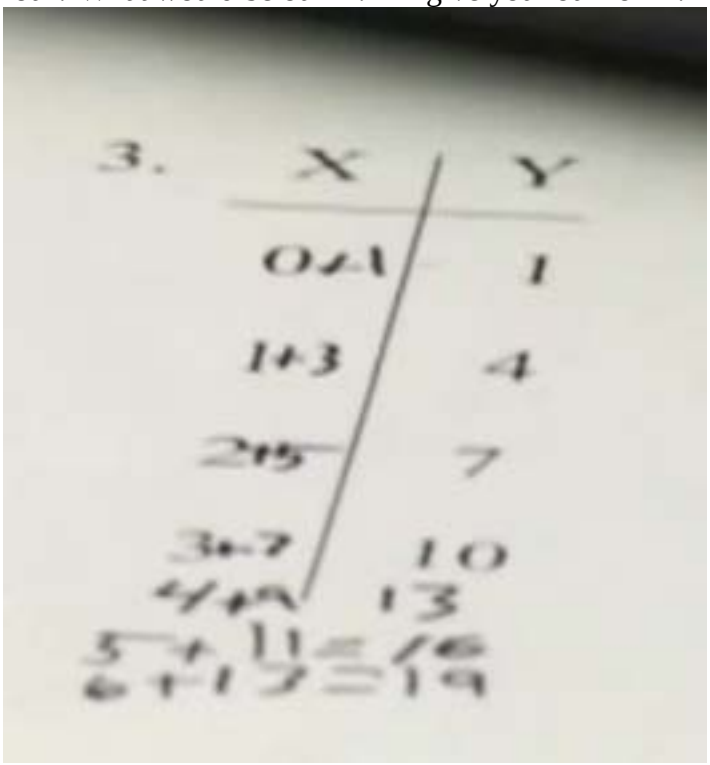
Description: Solving Guess My Rule problem 3 **Parent Tape: Early algebra: Investigating linear functions, Series 1 of 7: Guess My Rule introduction and Ariel and James with problems 1-3Location: Frank J. Hubbard Middle School – Plainfield, NJ** **Researcher: Carolyn Maher**	**Transcriber(s): DeLeon, Christina** **Verifier(s): Yedman, Madeline** **Date Transcribed: Spring 2009** **Page: 1 of 4**

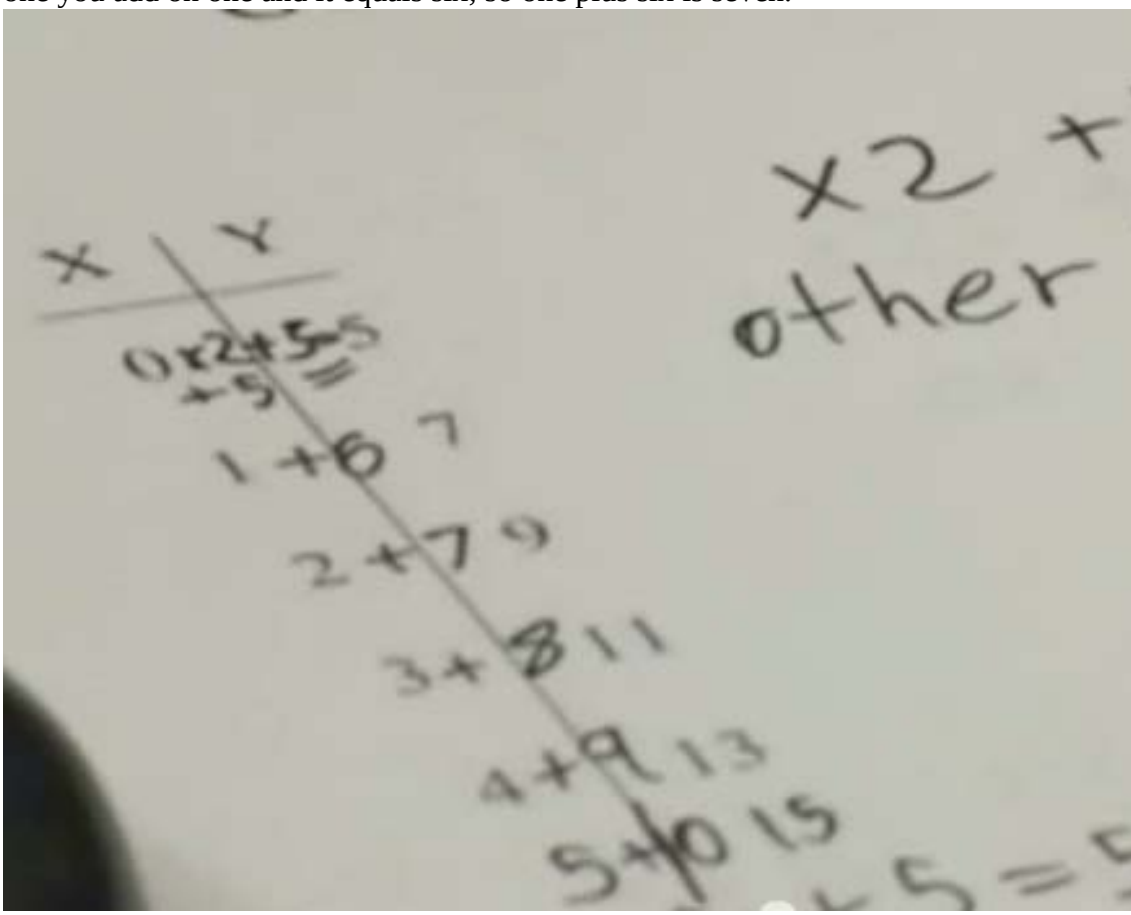
0:00	R2	OK. See what you think of this one.
0:06	James	It's adding by all odd numbers.
0:09	G4	Tell me what you mean by its add by odd numbers.
0:10	James	Zero plus one is one plus three is four. This plus five is seven... Yeah, and then three plus seven is ten …
0:22	G4	OK, so what would be if we did zero, one, two, three, what if we had four? What would be our Y? If I give you four for X?



0:29	James	Thirteen.
0:30	G4	Could you write it down on your chart? [James is writing something.]
0:35	G4	What if I gave you six for X?
0:37	James	Six?
0:38	G4	Hmm, hmm.
0:39	James	Then I know for five it would be eleven, and then six would be thirteen, so it would be nineteen.
0:49	G4	What if I gave you my favorite number, twenty-five again for X?
0:59	James	Oh, twenty-five?
1:00	G4	Hmm, hmm.
1:11	James	[thinking for a few seconds] I don't know. See, you be giving me hard stuff.
1:14	G4	I'm trying to challenge you.

1:16	James	I don't want to.
1:17	G4	But you're too smart not to be challenged. [James shakes his head.]
1:19	G4	OK, so what you think we can do? [James mumbles some numbers.]
1:27	James	Oh, fifty-five.
1:29	G4	How did you come up with that? [James mumbles inaudibly and is writing.] The camera now focuses on Ariel].
1:57	G1	[to Ariel] What was that word? Can you explain me this?
2:02	Ariel	I already figured this one out.
2:04	G1	But can you first explain me this what you got and then you can tell me that one.
2:08	Ariel	[pointing to the Guess My Rule Problem 2 table] Oh, I found that I was like, I came up with the first rule we got was times two plus five, zero times two plus five is five, one times two plus five is seven, and so on and so on and then we came up with…
2:22	G1	So, how you got this? What is this? How you got this?
2:25	Ariel	One plus six? Oh, that is for this rule. [pointing to what he has written on the right side of the table]. The other rule that I came up with, that James came up with, was that you add for every like number you add on one to add to the number. So for zero, you're adding five that equals five. For

one you add on one and it equals six, so one plus six is seven.



2:44	G1	Hmm, hmm.
2:44	Ariel	Then for the two it would be plus seven is nine.
2:46	G1	Hmm, hmm.
2:47	Ariel	Three plus eight is eleven, four plus nine is thirteen, and five plus ten is fifteen. And the pattern I also see is that it keeps on adding two, we have five plus two is seven, seven plus two is nine, plus two is eleven, plus two is thirteen, plus two is fifteen [looks at G1]
3:02	G1	OK, then what is this here? [pointing to what he has written on the right side of the table]
3:04	Ariel	And here it continues, six, seven, eight, nine, ten, eleven, twelve, and here it will continue fifteen plus two seventeen, plus two is nineteen, plus two is twenty-one, plus two is twenty-three, plus two is twenty-five, plus two is twenty-seven, plus two is twenty-nine.
3:18	G1	OK. And how you figure out this rule?
3:20	Ariel	This one? [has Guess My Rule Problem 3] It's easy. This is times … Oh, man, I forgot. Oh, yeah, times three plus one [writes on the side of the table ×3 + 1]

3:28	Ariel	Times three plus one. Done. Because 0 times 3 plus 1 equals 1. And 1 times 3 is 3 plus 1 is 4. 2 times 3 is 6 plus 1 is 7. And 3 times 3 is 9 plus 1 is 10. [Ariel writes as he talks. He has written ×3 + 1 in between the first three pairs of values in the table.]
3:50	G1	What will you get for four?
3:52	Ariel	Huh?
3:53	G1	What you will get for four?
3:54	Ariel	Four? That's easy. [Ariel extends the Guess My Rule Problem 3 table as follows: X Y 0 1 1 4 2 7 3 10 4 13 5 16 6 19]
4:06	James	I got to add the odd number. Because you know zero plus one... zero plus one is one. One plus three is... [James is working on the problem separately]
4:16	Ariel	[inaudible] It's just adding three. You find the answer easily. 1 plus 3 is 4. 4 plus 3 is 7. 7 plus 3 is 10. You just keep on adding three and you get all of your answers.