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Description: Yonny and Brandon with problem 1
Parent Tape: Early algebra: Investigating linear functions,
Series 2 of 7: Working on Guess my rule problems 1-3
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Transcriber(s): Yedman, Madeline Verifier(s): DeLeon, Christina Date Transcribed: Spring 2013
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Researcher: Carolyn Maher

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\section*{Time Speaker Transcription}
[Yonny and Brandon are working on the Guess My Rule Problem 1:
\begin{tabular}{rr}
X & Y \\
0 & 1 \\
1 & 3 \\
2 & 5 \\
3 & 7 \\
4 & 9 \\
5 & \(11]\)
\end{tabular}

00:02 Brandon Plus five, plus six ... I finished it, I finished it.
R1 [in the background] You think you got it?
Brandon Yeah. No, no I don't think. I know. [jokes] Sike nah, I think I got it. R1 [inaudible] I want you and Yonnyto work on making sure...

Brandon No, Yonny is slow. No, you are adding it by one! And then by, when you add it by one, and then you add another one by two or one? Come on, Yonny.

Brandon [talking to Yonny] I finished the problem already, OK? Without your help.

Yonny Ok, thank you.
Brandon It's by one, by one, by one.
Yonny By one, by one, by one.
Brandon No you got to add one, then add one, then add another one.
Yonny [pointing to the Guess My Rule Problem 1 sheet]No, so it would be like plus one, plus two, plus three, plus four, see I got it. I am too smart.

Brandon [joins Yonny] Plus five, plus six.See how smart. I am smart.
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\end{tabular}
\begin{tabular}{lll} 
Yonny & I just said that. He has no proof. [jokes around and laughs] \\
Brandon & Shut up! [laughs]
\end{tabular}
[Yonny writes on the side of the Guess My Rule Problem 1 sheet: The rules is that when you add you add by one more.]

Brandon Finished!
R1 So would you guys tell me what you have so far?
Brandon Yea, we finished.
R1 [to Yonny] Which one did you do?
Yonny Everything.
R1 Show me. How did you come up with the rule?
1:23 Brandon It was easy. Just looked at it, you know because. I just looked at it. Plus one, plus two, plus three, plus four, plus five, plus six, plus seven...I mean plus six.

Yonny You just have to add another one to...
Brandon To everything.
Yonny Plus one, plus two, plus three, and so on, etcetera ...
R1 Suppose if I gave you the number six, what would it be?
Brandon That'll be uhmm...six to umm...six to thirteen.
R1 How did you get that?
Brandon Because, umm, because you have to, umm...when you got to here, plus six, you have to add six plus seven.
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R1 Wait, I am not sure if I understand.
Brandon You see five, eleven? yeah five plus six equals eleven.
R1 OK
Brandon And then so you have to add six plus seven because you have to add, umm, yeah, six plus seven because you have to add to get thirteen.

R1 Six plus seven?
2:14 Brandon Look, OK, look, its one, zero plus one equals one. Zero plus, I mean one plus two equals three, three plus two equals five, three plus four equals seven, four plus five equals nine, and five plus six equals eleven and six plus seven equals, what you got here, equals thirteen.

R1 Umm, and suppose I give you twenty? What do you think it will be?
Yonny Umm, I am not sure.
[Brandon starts writing, while Yonny is busy doing something on the computer.]

R1 [to Brandon] You got it? OK, I want you guys to work on that one.
Brandon OK.
R1 Yonny? [He is trying to get Yonny's attention and getting him to start working]

Yonny Yeah? What'd you say?
R1 Twenty, suppose box is twenty, in this case, suppose X is twenty.
3:04 Yonny Umm...that's too big of a number. Brandon can handle it. Sike, nah, I'll do it though. We'll do it, Brandon. [whistles and starts working on the problem.]

Yonny Fifteen ... [whistles again]. Man, why do you have to say twenty? Couldn't he have said...

Brandon Eleven.
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Yonny I know, right. [thinks and whistles again]
Yonny [to Brandon] I know, I know Rule 2. Like, right here it doubles by 2.
Brandon Yeah that's the rule I was about to say.
Yonny No you didn’t.
3:45 Brandon Thereason that I wasn't about to say that was because it don't work right here [points with his pen to where \(\mathrm{X}=6\) and \(\mathrm{Y}=13\) in Yonny's table. Yonny continues to whistle.]

The camera focuses on what Yonny is writing. Yonny has written:
X Y
\(0 \quad 1\)
13
25
\(3 \quad 7\)
\(4 \quad 9\)
511
\(6 \quad 13\)
\(7 \quad 15\)
\(8 \quad 17\)
\(9 \quad 19\)

10
3:52 R1 Can you repeat what you just said? I didn't quite hear you.
Yonny I said this doubles by two.
R1 What doubles by two?
Yonny The Y.
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R1 For example, help me understand what happens here?
Yonny Like one plus two plus three plus yeah. Like one plus two [equals] three, plus two [equals] five.

R1 So you call that doubling by two?
Yonny Yah.
[Both Yonny and Brandon continue to work on the problem.]
4:42 Brandon [mumbles while working] I got it! And twenty would be forty-one. Forty-One. Forty-One. Forty-One. The total would be forty-one.

Yonny He got it. [stops working, putting the pen and paper aside.]
R1 Suppose I ask you, if give you a big number. How did you get twenty?
Brandon On this side, on this side, the number goes up by two. So, I skipped by two all the way to twenty.

R1 Hmm...I see
Brandon Look, look you see. Now you don't.
R1 Yonny...
Yonny Yes.
R1 I want to give you guys another problem. But before I give you the other problem, I want to ask you a question.

Yonny Yes.
R1 What would Y be if X is one hundred?
Yonny What?
Yonny Oh you can't make us do that...
Brandon Oh if X is one hundred, what would Y be? I don't feel like going up to one hundred.

5:37 R1 So is there another way to get there?
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Brandon Yeah, well hundred times two.
R1 So, is there another way to think about this rule?
Yonny [yawns] No.
R1 So if I ask you about the hundred, what's the problem? You don't have to work out?

Brandon I have to work it all out all day.
Yonny Well, I think it could be like forty-one times five.
Brandon Yeah well you have to do something.
6:06 Yonny But like forty-one is twenty and twenty is a factor of a hundred. So, it multiplies by five to get on it. So, I just multiplied forty-one by five.

Brandon And what would you get, stupid?
R1 So could you guys think about that for a while?
Yonny What?
R1 I want you to think about that.
Yonny Ahh, we can think about it.
Brandon Yes sir. Think about it.
R1 And I will be back.
Yonny I am thinking.
Brandon Think about it. Take a sec.
[Yonny whistles. Brandon sings.]
6:43 Brandon Come on bro, think of the dag on question.
Yonny What are you talking bro...You about to play games. [starts laughing]
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Brandon What are you talking about? There is nothing on my screen. Do you see it? Do you see me clicked on anything? Do you see anything blue around here?Around anything? Nothing.
[Brandon starts looking at Yonny’s screen.]
R1 So guys, did you come up with anything?
Brandon No, I don't know it.
Yonny I'm not sure.
Brandon Yonny wasn't working on it.
Yonny What are you talking about?

Brandon I started thinking.
Yonny You are such an unpopular person. You are so whack.
Brandon It don't wanna... It don'twanna go slow down. Oh, here it is.
Yonny He's kind of slow in the brain.
R1 You want someone to help you?
[Both students are busy playing video games on the computer. Yonny keeps whistling.]

Yonny It's two hundred and five.
Brandon So it might be two hundred and five.
R1 Do you think it's two hundred and five?
Brandon Maybe.
R1 How'd you get that?
7:46 Brandon Forty one times five, because twenty is a factor of one hundred. Twenty forty-one, so forty-one times five, cause twenty times five equals a hundred, so we just took the five, from the twenty, so we took the forty one and multiplied it by five.
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