

Description: Early Algebra Ideas Involving Two Variables: Clip 10 of 18, Mike's Solution to Problem 2 Parent Tape: Early Algebra Ideas Involving Two Variables Date: 1993-10-01 Location: Harding Elementary School Researcher: Robert B. Davis	Transcriber(s): Spang, Kathleen Verifier(s): Yedman, Madeline Date Transcribed: Fall 2010 Page: 1 of 2
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RBD Um, OK, I guess I'd like to one on the board so that everybody gets to see one. OK, could we get everybody to think about one problem, the same problem for a minute, and let's do one of the first five I think that's what people feel the happiest about. Who is going to come and explain one? Who has not had a chance to talk to the camera? Yeah Mike, why don't you come up and explain one right up here and explain it.

Mike What number?

RBD It's your choice, not one, but two or three or four or five.

Mike I'll do number two.

RBD Uh, OK, you see where the...

Mike [Mike writes on the board

	Δ
0	5
1	7
2	9
3	11
4	13

]

For, whenever you have a number under the triangle there has to be a pattern, see five and seven, the difference is two. Five plus two is seven. Seven plus two is nine, nine plus two is eleven, apparently it's two, you see here. OK, since two, and of the first number, which is going to be box times two equals, no, plus something...

Mike [Mike continues to write

	Δ	
0	5	(box × 2) +
1	7	2
2	9	2 8 +1
3	11	2 7
4	13	

]

Zero can go into five, five times,

RBD Well,

Mike Yeah whatever, so we leave that one out. One goes into seven, seven times, leave that one out. The two does not go into nine, so take one out to make it eight, so we're going to have to have plus one. So this two goes into eight. Two times four is eight, plus one

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is nine, so that's nine. The eleven, take one away and it's ten, but it doesn't go into ten. So you take one away so you're going to have to take one away from eight, so it's going to be seven.

RBD Well, I think some people have an idea that's a lot easier than that. Uh, could everybody hear what Mike was saying? He said he's going to start with box times two and I take it everybody agrees with that, isn't that right? You saw where he got the two? So, now you want to say where you get the five from.

RBD Well, now you want to say where you got the five from. Um, now he has a sort of complicated thing he's doing here, but I'm wondering if there might not be something easier. Matt.

Matt It is box times two, but it is plus five. What's the first number on the right?

RBD So he says...

Matt Box times two would be fine, but then you add five.

RBD Yeah Matt, you see where he says he's getting the five from the pair zero five, he says that's the number you want to take. You want to write that?

Mike So plus five. It'll work.

[Mike writes

$$\begin{array}{r}
 \square \quad \Delta \\
 0 \quad 5 \quad (\square \times 2) + 5 = \Delta \\
 1 \quad 7 \quad 2 \\
 2 \quad 9 \quad 2 \quad 8 \quad +1 \\
 3 \quad 11 \quad 2 \quad 7 \\
 4 \quad 13 \quad \quad \quad]
 \end{array}$$

RBD It'll work. OK, is everybody happy with that? You all know that?

Students Yeah.

RBD You know that's a very important set of ideas in mathematics.