

<b>Description: Early Algebra Ideas Involving Two Variables: Clip 13 of 18, Sharing Ideas about Problem 6</b> <b>Parent Tape: Early Algebra Ideas Involving Two Variables</b> <b>Date: 1993-10-01</b> <b>Location: Harding Elementary School</b> <b>Researcher: Robert B. Davis</b>	<b>Transcriber(s): Spang, Kathleen</b> <b>Verifier(s): Yedman, Madeline</b> <b>Date Transcribed: Fall 2010</b> <b>Page: 1 of 3</b>
---	---

RBD           What? Uh, Ankur and Michelle think they have.  
Student       We've got a secret.  
RBD           You have?  
                  [This CD ends here after 46 minutes.]  
                  [The second CD starts here.]

Romina       But the things changed the equation other than the triangles.  
                  Things change almost the whole entire equation.

RBD           Yeah it does. Do you want to come and write it and tell it to the camera?

Romina       [asks the RBD] So the equation can change?  
RBD           Well it's going to have to be different from this; it wouldn't be that it'll be a different kind of equation.

Jeff           The only difference between this and that is...

Brian         Can you change the numbers in the triangle? Please say yes  
RBD           Well, there might actually be ways to do that too.  
Brian         We did that and it works the way I have it.  
Michael       But, the difference between one and four is three, the difference between four and seven is three, the difference between seven and ten is three, that means that's going to be the first number, three, cause box times three. But, the pattern in this is one three five seven and nine so how are we going to...

RBD           I think Mike is making a point I'd like to pursue. I think maybe it would be ok try sharing a little bit of the secret without telling everybody everything. [Michelle raises her hand] Michelle, without saying what you and Ankur have done, can you tell people what you said to me originally? Do you remember what you said?

Ankur         We're thinking what we should say.  
RBD           No wait, say it to everybody, come and do it here on the front board. Now, don't tell them your nice method of writing it, OK? Because remember, you said something before.

Michelle I    Just tell them what we got for the written answer not like the code?  
RBD           Do you remember what you said to me before you invented the nice way of writing it

RBD           Yeah, right here. The number outside the box had to be the same as the number inside the box

Ankur         But that will give it away.  
RBD           Oh, no it won't.

<b>Description: Early Algebra Ideas Involving Two Variables: Clip 13 of 18, Sharing Ideas about Problem 6</b> <b>Parent Tape: Early Algebra Ideas Involving Two Variables</b> <b>Date: 1993-10-01</b> <b>Location: Harding Elementary School</b> <b>Researcher: Robert B. Davis</b>	<b>Transcriber(s): Spang, Kathleen</b> <b>Verifier(s): Yedman, Madeline</b> <b>Date Transcribed: Fall 2010</b> <b>Page: 2 of 3</b>
---	---

Michelle I Well not exactly we didn't get the code right after we did that.  
RBD OK, they're discussing how much of the secret they're prepared to publish at this stage, well a little bit I guess.

RBD I think that's known as espionage. OK it would be worth listening because this is a very interesting idea and they're trying to be careful, they're still giving you a chance to invent it, but they're going to tell you something worth thinking about.

Jeff They don't want to give us a chance. They just want to be smart and keep it from us

Michelle I [Michelle writes on the board,  
 $(\square \times \_) + 1 = \Delta$  ]

RBD Well, this is what we got, but you have to write it in the code.  
Well, can we get it quiet please, Jeffery and everybody can we get it quiet please.

Michelle I The number you add after the bracket is always one.  
RBD I think everybody is well agreed on that. Isn't that true a lot of people have decided on that.

Brian Yeah, we got that.

Michelle I And the number that is here is always the number that's in the box cause if you put zero here, zero times zero is zero, plus one equals one.

Brian and Romina What about three?

Ankur Yeah, but figure out the rest yourself. Jeff the number that goes here always goes here. You have to figure out what the code is.

RBD Well, yeah. Do you want to come and show it to the camera? Do you want to show it to me? Just say it. OK, say it. OK, wait a second can we get it quiet please because I want to hear what Michael is saying.

Michael For number three the difference between one and four is three, the difference between four and seven is three too and the difference between seven and ten is three so that is going to be the first number but on number 6, the difference between one and two is one and the difference between two and five is three so which one goes in the box?

RBD Yeah, why don't you come and write that on the white board so everybody can see what you're doing. What you just said.

<b>Description: Early Algebra Ideas Involving Two Variables: Clip 13 of 18, Sharing Ideas about Problem 6</b> <b>Parent Tape: Early Algebra Ideas Involving Two Variables</b> <b>Date: 1993-10-01</b> <b>Location: Harding Elementary School</b> <b>Researcher: Robert B. Davis</b>	<b>Transcriber(s): Spang, Kathleen</b> <b>Verifier(s): Yedman, Madeline</b> <b>Date Transcribed: Fall 2010</b> <b>Page: 3 of 3</b>
---	---

Ankur Which ever number goes here...

Michael Yeah, but the problem is...

Ankur Listen Mike, this is zero and it goes in the box so it has to go here too.

Michael No, but we're trying to find out what goes in the second.

Ankur In this, in this?

Michael No, no.

Michelle I [Writes:  $1 \times 1 + 1 = 2$ ] If you put a one in here, one times one is one plus one is two.

Michael What goes here?

Ankur Whatever goes in the box goes here, if this is ten then ten goes here, if this is five then five goes here.

Michelle I Whatever's in the box goes next.

Ankur And one always goes here.

Michelle I It works every time.

RBD Let me keep track of where we stand because I'm getting a little confused.

Brian We have to write a code? How we got it or something?

RBD No, wait, do the same thing that Michael did originally.