

Description: Early Algebra Ideas Involving Two Variables: Clip 18 of 18, Problem 10 and the Value of Keeping Secrets 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 3
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RBD OK. I'd show you one last problem. Now, we wouldn't solve it today it's a very hard problem, no the one that I'm about to show you.

Student Is that number ten?

RBD Yeah, you could put it as number ten it's a good idea.
[Writes on board

\square	\triangle
0	0
1	1
2	3
3	7
4	15
5	31
6	63
7	127
8	255

]

Now we're certainly not going to solve that today, but I'll bet you you are going to solve it in the next few weeks.

Michael Are you coming back next week?

RBD I'm not sure when we come back I'll have to look it up. It really is a hard problem. But it is a very interesting problem. Good heavens.

Jeff When we have to multiply box times box could it be box plus box?

RBD Could be. Could be all kinds of things.

Jeff I got it. You're the one who started it.

RBD Are you ready to explain that to the camera?

Brian Well, we have to make sure it works, sixteen and sixteen is thirty two. It does work, but sixty-three.

Student What about us?

RBD Do you want to say it to the camera or do you want to say it to everybody.

Brian Camera. OK.

RBD OK, that's the wrong thing this is better. That's the right one. Maybe you've got it all written. OK, here's the microphone.

Brian I explain OK. Well, see, one is the difference between zero and one. And if you add one plus one it equals two which is the difference there. And two plus two is four which is the difference between there. Four plus four

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is eight which is the difference between there. And you add sixteen and sixteen which is thirty two the difference between there and so on. See the numbers, you add that number with itself and you get the answer which is the difference between the next numbers.

- RBD Well, now I'm not sure. What number am I looking at here?
- Brian Between zero and one is one.
- RBD So what am I going to do add that?
- Brian You add one and one and you get two which is the difference between there.
- RBD Oh, ah, that's really clever.
- Brian If you add the one and two you get three. And so on you do it for everything.
- RBD OK, you may want to think about that some more, but that's a very clever idea
- RBD OK, we really have run out of time, I think, anybody have anything you want to say as our last parting remark before we... parting remark. Anybody want to say anything? What? Could I sit there for a second? Can we talk for one second about keeping secrets?
- Milin We shouldn't keep secrets.
- RBD You shouldn't keep secrets? Well, there are two sides to it? What's the bad thing about keeping secrets?
- Jeff Other people wouldn't find out.
- Milin If another person finds out and says it, as long as you...
- Student As long as you eventually tell it's all right.
- Student Could you keep it for a couple weeks and see how many people die before I give it out.
- RBD Let me turn it around and argue the other case a little bit. I think we do need to keep thinking about it, we do need to find a way to this so that everybody's comfortable with it, but there is also a case to be made for keeping secrets because what I've said sometimes to people is suppose say Michael and I went to the gym and Michael did a lot of weight lifting and I watched him who gets stronger? He would. What's that got to do with secrets?
- Ankur Nothing. Oh, you would have to do it yourself.
- Romina He's doing the lifting. If you want to get stronger you got to figure it out.
- RBD Cause if you want to be good at figuring things out you better practice figuring things out.
- Jeff But maybe if you want to make sure of things before you do it.
- RBD We really are out of time we have to stop.

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