Description: Testing (x+y)(x+y) = x(x+y) +

y(x+y) with numbers Date: 1995-11-08

**Location: Harding Elementary School Researcher: Professor Carolyn Maher** 

Transcriber(s): Aboelnaga, Eman Verifier(s): Yedman, Madeline Date Transcribed: Fall 2010

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Line	Time	Speaker	Transcript
1		R1	Okay. Very interesting. So – so you can think of x plus y – you could have x
			amount of times, right?
2		Stephanie	Um hm.
3		R1	And you could have it y amount of times. Isn't that right?
4		Stephanie	Yes.
5		R1	Is that a way to think about it?
6		Stephanie	Oh! Yeah.
7		R1	Does that make sense?
8		Stephanie	Yeah. You could do it like that.
9		R1	If you did, does it make it simpler to now
10		Stephanie	Yeah.
11		R1	rewrite these – these – we know it didn't work to be x-squared plus y-squared.
			Why don't you play with that and see what you can do with that?
12		Stephanie	Alright. Should I put in like some numbers?
13		R1	Well – See what you –
14		Stephanie	Oh, well otherwise –
15		R1	Yeah, that's – Yeah. Put in some numbers. Sure. That's a great idea.
16		Stephanie	Alright. I'll just put in like a number for x. So I'll make x two.
17		R1	Well, put in a number for y and x.
18		Stephanie	Alright.
19		R1	That's interesting.
			[Stephanie writes: 2(2 + 3) + 3(2 + 3)
			4+6+6+9
			10 + 15
			25]
20		Stephanie	six plus nine equals ten plus (inaudible) twenty-five.
21		R1	Is that what you were supposed to get before?
22		Stephanie	Yep.
23		R1	You like that, huh?
24		Stephanie	Um hm.
25		R1	So it worked at least for two numbers? Does that mean it's always going to
			work?
26		Stephanie	It might. I –
27		R1	But does that mean it always is gonna work?
28		Stephanie	I think so. I think that's allowed. To do it like that.

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29	R1	Does that make sense? What you did?
30	Stephanie	Yeah.
31	R1	Alright. Now. Okay. So you sorta think you're on the right track. You don't
		want to test any more just to be sure? Another one or two?
		[Stephanie inaudible]
32	R1	It's up to you. I really – I'm not trying to persuade you.
33	Stephanie	Well.
34	R1	If you're satisfied, we can go on.
35	Stephanie	I'll do it.
36	R1	It's just that my students back there might be saying 'You're letting her be
		convinced on one try!' I'll bet they've got to tell me things I'm doing wrong later.
		[Stephanie tries 4 and 5:
		4(4 + 5) + 5(4 + 5)
		16 + 20 + 25]
37	Stephanie	Now it didn't work.
38	R1	It didn't work?
39	Stephanie	No.
40	R1	Let's see what you had happen here.
41	Stephanie	Well, now I got a higher number But I'm using higher numbers.
42	R1	Right. So?
43	Stephanie	So – it's okay?
44	R1	Did you test it on both sides?
45	Stephanie	Not yet.
46	R1	Remember what you're testing that works. Remember what you're – See why
		did the twenty-five work here? Remember. Look back and see what you did here.
47	Stephanie	Oh.
48	R1	You were testing?
49	Stephanie	Because I did use two plus three here.
50	R1	Let's find
51	Stephanie	Oh. I did use two plus three here.
52	R1	Right.
53	Stephanie	That's why it worked.
54	R1	Right. So now when you use four plus five –
55	Stephanie	So now I would have to use four plus five there.
56	R1	Would you would you expect to get something different?
57	Stephanie	Let me(inaudible)
58	R1	Yes. (inaudible) This is going to be very confusing.
59	Stephanie	I got eighty-one.
60	R1	Is that what you should get?

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61	Stephanie	Um – well four plus five
62	R1	If you use four plus five.
63	Stephanie	is twenty.
64	R1	Four plus five times four plus five?
65	Stephanie	Plus (inaudible) that would be twenty plus twenty. I get –
66	R1	Four plus five.
67	Stephanie	Oh. Nine!
68	R1	Nine times.
69	Stephanie	I'm doing four times five! Nine times nine. That's eighty-one. That works.
70	R1	Getting more confident in this rule?
71	Stephanie	Yeah. Yeah.
72	R1	You think it's going to work now? Or do you need to try any more?
73	Stephanie	Um no. But should I?
74	R1	Uh, it's up to you. – Alright. If you're confident with the reason of breaking it
		down, you should feel pretty good about why it should work. You know?
75	Stephanie	Yeah.