BECCA SHERMAN: So I saw, on some of your papers I did see people who put 8 dollars down here. people said, well, I thought about it on the back of the paper, that's how I thought about it. have a different idea? No? Ron?

STUDENT: No.
BECCA SHERMAN: Okay. And then, if we go with this idea, then we have, how many groups of $\$ 8$ do we have up here? I want all eyes up here, this is something that everyone can look at and count. How many equal groups of $\$ 8$ are up there? Can we get someone, someone from this table. How many equal groups of $\$ 8$ ? No? One of you guys willing to share? How many equal groups of $\$ 8$ ? What'd you see.

## STUDENT: 4.

BECCA SHERMAN: 4 groups of 8 dollars? So..
STUDENT: What?
BECCA SHERMAN: What? You don't see that? Come up and show us.
STUDENT: Oh, 1,2,3,4.
BECCA SHERMAN: Oh! Does everybody see 4 groups of $\$ 8$ ?
STUDENTS: Yeah.
BECCA SHERMAN: Okay. So all together we have 4 groups of $\$ 8$. And we could use our repeated addition, or multiply? And what do you get? For both of them together?
STUDENTS: 32.
BECCA SHERMAN: \$32? Okay. So, you guys got to try this problem your own way, you got to see how a partner did it, and then you saw how Charlie did it. The last thing l'm gonna ask you to do is, just, on the bottom of your paper or somewhere where there's space, just write a couple of sentences about: what will you remember about Charlie's way? Anything, you can say what you liked about it, what you don't like about it. You can say anything you want about what you'll remember about Charlie's way of drawing this. And we're looking for at least, about three sentences, so that we know what you're thinking 'cause this is going to help us know what you guys think.
BECCA SHERMAN: Can you write a sentence about that way of doing it? Maybe it made sense to you and now you understand.
STUDENT: Why is it a girl called Charlie?
BECCA SHERMAN: Can you guys write some sentences? What did you think about that?
STUDENT: I got three.
BECCA SHERMAN: You wrote three already? Did you write them down? Can you write them down? Do you guys know what you need to write about?

STUDENT: No.
BECCA SHERMAN: So take a look at how Charlie did this problem. At how he drew a picture, and what do you think about it? What will you remember? Will you remember... could you describe it? Try describing Charlie's way. What did Charlie do? What's one thing Charlie did? What are we doing? You're trying to describe... did you, I don't know, did you get to see Charlie's way up there? Could you copy that one down? Try copying that one down and see if that makes sense.
STUDENT: Paper.
BECCA SHERMAN: Oh! Well let me get you one. So, if you are having a hard time thinking about what you'll remember, try describing Charlie's way. What.. what's one thing, we can talk about a couple of things. What's one thing Charlie did up here?
STUDENT: He used groups.
BECCA SHERMAN: He used groups. How did he show his groups?
STUDENT: by, um, writing a square.
BECCA SHERMAN: So Charlie used squares to show equal groups. I don't know, is that something that you'll remember?
STUDENT: Yeah.
BECCA SHERMAN: Think about what you noticed or what you might remember. We'll just go one more minute. If you're not sure, you can say something about, "I'm really not sure." Just tell us about what you're thinking right now. Or one thing you'll remember from the lesson. Think about anything from the lesson: What will you remember? Can you think of something? So, what was something earlier, then, from the lesson that you might remember? Could be the multiplication and division. Or from your pictures. Something that..

STUDENT: The multiplication
BECCA SHERMAN: The what?

STUDENT: The multiplication.
BECCA SHERMAN: So could you tell us something about the multiplication?
STUDENT: Uh, I'm gonna remember Charlie's way by multiplication?
BECCA SHERMAN: Okay, go ahead and write that and see if there's anything else you can say about it.
STUDENT: How do you spell Charlie?
BECCA SHERMAN: C, H, it's on the board, but CHARLIE. Okay.
BECCA SHERMAN: I talked to Ms. Whitney to tell her how exciting it was that we were gonna be doing a lesson, and that we were also going to have video cameras in here for you guys to, help teachers learn more about mathematics and how to teach. And what she said is, Oh! Well, we have to do something special for them! And I really want to make sure that you guys know that we'll do something, we'll talk about whether, um, we might bring in some popcorn, or something for you guys. Because what you guys did today, by sharing your thinking, was, you're gonna help other math teachers be better math teachers. And we really learned a lot from you. So thank you very much, and I'll see you guys on Friday. Next Friday! Maybe. No, I won't. I'll see you soon! Thanks, you guys.

