

PATTY FERRANT: I'm going to ask for a volunteer.

PATTY FERRANT: They're going to have a tough time just participating. In the other classes a lot of them talked with their partner, but then when I asked for a volunteer it's like, I had to beg.

I'm going to ask for a volunteer. You're going to use this sentence frame, and let's see what we come up with.

STUDENT: There are seven dots.

PATTY FERRANT: Okay, I'm going to ask us to stop. Do you see seven? If you agree with Chloe put a thumb up. If you think you've got a different number put a thumb down. It's okay. Put it in front of you because it doesn't matter. It's whatever you think.

STUDENT: I saw them arranged as a figure eight.

PATTY FERRANT: A figure eight. I'm going to ask her a lot of questions, and guess what? She might get a little stressed out. What am I trying to do? Make sense of what she's saying. So I asked her how she saw it because I want to try to recreate it. I want to try to see those seven dots. So what did you see again? How were they arranged?

STUDENT: As a figure eight.

PATTY FERRANT: Okay. Could you be more precise?

STUDENT: If you turn it on side when...it seems like...at first it seems like there's two squares joined together, but if you turned it a little bit on the side, it looks like a figure eight.

PATTY FERRANT: Okay. So I hear you saying two squares. Did anybody else see two squares? Okay. Could you tell me how many dots you saw in those two squares? Let her speak.

STUDENT: Each square had four but...

PATTY FERRANT: Wait a minute. Each square had four?

STUDENT: Mm-hm.

PATTY FERRANT: Okay. Because I'm going to try and recreate this. Okay, so each dot had four, or each square had four. So this is a square. You're saying that there's four dots in that square?

STUDENT: Mm-hm.

PATTY FERRANT: Okay.

STUDENT: And another square had four but...

PATTY FERRANT: Where was that other square?

STUDENT: On the left top corner.

PATTY FERRANT: Were those squares far away from each other? Were they touching? How were they?

STUDENT: The corner...the right bottom corner of the top, um, square was touching the bottom...the top of...top left of the bottom square.

PATTY FERRANT: You're being very, very precise right now. I understand. So are...so this also, this had how many?

STUDENT: Four.

PATTY FERRANT: Four...four dots as well. Right. And then I'm going to ask you to do me a favor. She told me something about the corners of each of those squares. Talk to your partner. What did she say about the corners? She said something about that part right there. Right, Chloe?

STUDENT: Mm-hm.

PATTY FERRANT: What did she say about that part? Talk to your partner real quick. What did she say?

PATTY FERRANT: She had seven but how many...she has how many squares?

STUDENT: Two.

PATTY FERRANT: Two and each square had how many dots?

STUDENT: Four.

PATTY FERRANT: Four. So she has how many dots?

STUDENT: Eight.

PATTY FERRANT: But what did she say about that? The touching part.

STUDENT: [Inaudible]

PATTY FERRANT: Interesting. We have to bring that up. Can someone tell me what she was talking about there? Go ahead, Aaliyah.

STUDENT: She said the two corner dots were touching.

PATTY FERRANT: The two corner dots were touching? So touching, like, touching like that?

STUDENT: Yeah.

STUDENTS: No.

PATTY FERRANT: No. So can someone help me out? Or Aaliyah, do you want to continue?

STUDENT: It's not touching, it's combined.

PATTY FERRANT: Combined. How many dots does she have right now?

STUDENT: Eight.

PATTY FERRANT: Eight. Eight dots but then something was happening right there, right?

STUDENT: On those corners, [inaudible] combined to make one dot, which makes seven.

PATTY FERRANT: But how many dots did you see at first?

STUDENT: Eight.

PATTY FERRANT: You saw eight. How did you get those eight dots? What math did you do?

STUDENT: Added...no, I just thought...I just add two squares...

PATTY FERRANT: Sure and how many dots were in this square?

STUDENT: Four.

PATTY FERRANT: Exactly. And how many dots were in that square?

STUDENT: Four.

PATTY FERRANT: And what did you do to get eight then? What math?

STUDENT: Just add.

PATTY FERRANT: Of course! You're doing great. You are doing an excellent job helping me make sense.

STUDENT: I looked closer at the squares. I mean both of the squares had a corner but they were actually touching...well, combined.

PATTY FERRANT: [Inaudible] I think Jazzlyn, you said combined, right? Somebody said combined.

STUDENT: Aaliyah.

PATTY FERRANT: So then what did you have to do to show that there weren't eight dots? What did you do next?

STUDENT: I minus one.

PATTY FERRANT: You minus one and so then how many dots did you end up getting?

STUDENT: Seven.

PATTY FERRANT: Seven dots. Did you see her strategy there? She tilted. What's another word for tilt?

STUDENT: Rotate.

PATTY FERRANT: Who said it? Say it again.

STUDENT: Rotate.

PATTY FERRANT: To *rotate*. Rotate. Ooh, let me get into our unit three. Very important word: "rotate." So did you see how she rotated the figure and for her it looks like a figure eight? Does her strategy make sense to you? Give me a thumbs-up if yes; in the middle it's like so-so, and then if it doesn't make sense it's okay, put a thumb down. Up, middle, or down. Be honest to yourself. It does not matter. I want you to think about why did we just do that dot talk. What do you think I'm trying to do? What's the point? Think in your head for a second and when you have an idea, you're going to give me a thumbs-up. Think of everything that we did. Okay, I want you to talk to your partner. Come up with one idea together. So what's the point? Why do you think we did that?

STUDENT: For the reason how you could find the dots without just talking about [inaudible].

STUDENT: I'm guess she wants us to move faster.

STUDENT: In that way you have to communicate with a partner to find out. You could find different ways to find patterns and ways. So you go up to seven, right?

STUDENT: Yeah.

STUDENT: We can actually, like, explain it not just...

STUDENT: Instead of just looking at the answer...looking at it and being able to just answer it, but being able to explain how you got the answer.

PATTY FERRANT: So we're listening and we're going to see. So Francine, what's the point? Practice making sense. Who thinks that's one of the goals? Absolutely! I already love that people are like, "Yeah, you don't need to yell, like, yes."

STUDENT: There are many different ways to get to the same answer.

PATTY FERRANT: There are many different ways to get to the same answer. The teacher has to make sense too. And then sometimes you're going to have to make sense of me because sometimes I don't make sense, and you have to try to ask me what I mean. So we have to work together in this class to make sense.