ROBIN EVERAGE: If you are done, then I would like for you to start discussing what you notice about the area and the perimeter of these shapes that you're creating right now.

STUDENT: Okay someone can use this. Hannah.
STUDENT: She just [inaudible] the last one, so we just need that. We can have two.
STUDENT: Oh, we gotta check. One, two, three, four, five, six, seven, eight, nine, 10, 11, 12, 13, 14-

ROBIN EVERAGE: Finish that one and then start discussing what you notice about the area and the perimeter.

STUDENT: Thirty, 36.

ROBIN EVERAGE: Are you guys done with this one?
STUDENT: Yes, we're doing our two, we're doing our second-

ROBIN EVERAGE: All right, then do that one and then discuss your area and your perimeters, what you see on all of your shapes.

STUDENT: The difference between all of these is that they have different sizes.

STUDENT: Eighteen times two equals, hmm.
STUDENT: Thirty-six.

STUDENT: Thirty-six. 6A equals 36 square-

STUDENT: Units.

STUDENT: ...units. And then if we do that-

STUDENT: P would equal-
STUDENT: ... 18 plus 18 plus 2 plus 2 plus that, it's 36 .
STUDENT: Thirty-six.

STUDENT: That's four.

STUDENT: Four, so-

STUDENT: Plus, four equals 40.
STUDENT: Forty!
STUDENT: P equals 40 inches. I noticed-
STUDENT: But would it be square inches?
STUDENT: Just inches, she said inches.
STUDENT: Okay.
STUDENT: Okay, I think the area is all the same because when it was 36 all the areas equaled 36. And um, uh, the squares were all different, so the perimeter is different be-because if $y$ 'Cause that one's six, six, six, six but that one's nine, nine and four, four. And this one is-

STUDENT: So, what you're saying is that-

STUDENT: Three, three, three, three and 12, 12, and 18, 18, and 2, 2.
STUDENT: So, what you're saying is they all have different shapes and sizes because-
STUDENT: Yeah, so it's a different perimeter.

ROBIN EVERAGE: I'm going to ask a question, a few questions, and I want you to talk with your group, when you're looking at your papers, to think about the answers that you used. Or, excuse me, the strategies that you used to get your answer. So, here's your first question. What strategy did you use to find the different-sized rectangles? Think about it for a second. What strategy did you use to find the different sizes of your rectangles? Talk to each other, go.

STUDENT: Addition.

ROBIN EVERAGE: Okay, more than one word would be fantastic.
ROBIN EVERAGE: All right, hold on. When you're answering this, answer it as if you were teaching me. If you had to teach me this, how would you answer that question? More than one word, try to explain what you did.

STUDENT: A strategy you could use was multiples to find which one had $36 . \mathrm{Mm}$-hmm.
STUDENT: Has multiples, you count the multiples to get the answer. And addition is you're adding it to the perimeter.

STUDENT: Now how is that gonna work? Because we had 36 , so we just need 12 .
STUDENT: Three rows of three-
STUDENT: Twelve.

STUDENT: Three rows-yeah, three rows of 12—

ROBIN EVERAGE: I'm going to call Malaree and Chloe, so both of you, what strategies did you guys use?

STUDENT: We used-
ROBIN EVERAGE: Hold on, I need everyone tracking the speaker. Levi. Go ahead.
STUDENT: We used fives to find 36 but—and we count by fives, but, um, there-it didn't go to 36 , it went to 35 , so, um, we couldn't use 30-I mean we couldn't use the fives.

ROBIN EVERAGE: Is that what you guys were saying? So, you were counting kinda by multiples and you realized counting by fives would or would not work?

STUDENTS: Would not work.

ROBIN EVERAGE: Okay, you guys hear that? That was a strategy-l know, I think you guys used that as a strategy as well, didn't you? Okay here's your next question for you to be thinking about. What kind of rectangle had the sm-smallest perimeter, or the smaller perimeters, and why do you think that?

STUDENT: So, then this one's the little one.

STUDENT: But how [inaudible] for this one?
STUDENT: It's 24. They were talking-
STUDENT: How many problems?
STUDENT: [inaudible] so it would be 12 times 2 , right?
ROBIN EVERAGE: Okay, so over here, which one had the smallest perimeter?
STUDENT: This one.

ROBIN EVERAGE: Okay, why?
STUDENT: Because this one has, um, 26 as the perimeter and this one has 36 .
ROBIN EVERAGE: Okay, why? What can you tell me about that shape, the difference of that shape and that shape that, that would give that the smaller perimeter? Why did you say that?

STUDENT: Um, because, um, this one has like, um, if you count these, it has, um, shorter distance and this one has a longer distance of that.

ROBIN EVERAGE: So, you're saying from here to here is a shorter distance from here to here?
STUDENT: Mm-hmm.
ROBIN EVERAGE: Okay, good. What do you notice about these two? I want you two to ta-or you three to talk about the difference of these, the perimeter of these. You're not writing any more, talk about the difference of these two, go.

STUDENT: Okay, the difference of these two is that this one's three and this one's four.
STUDENT: Yeah and, and this one is, um, 1, 2, 3, 4, 5, 6, 7, 8.
STUDENT: This is $12-$
STUDENT: This one's nine.
STUDENT: This is 12 in columns; this has nine in columns.
STUDENT: Oh 'cause the [inaudible].
STUDENT: Four columns nine and three columns of 12.
STUDENT: This has nine rows and this one has 12 rows.

STUDENT: I agree with you.

