STUDENT: So, these are also—basically the pattern would be, it's twos—

STUDENT: Six ways.

STUDENT: There's another way.

STUDENT: But on that one, it's, um, it's another ten.

STUDENT: Let's ask, let's see if we're done.

STUDENT: So, we noticed that it's going by twos—

STUDENT: And then it comes—it's a ten.

STUDENT: And then it goes another ten, but it's still by twos.

STUDENT: I agree with you, that is true because, like, 14, 16, like, 10, 26, yeah, that's it. Those are the perimeters, because the areas were all the same, because we just changed the shape.

STUDENT: Yeah, we just changed the strategy and the shape.

ROBIN EVERAGE: Your perimeters changed? Why do you think your perimeters changed?

STUDENT: Because we made different shapes.

ROBIN EVERAGE: You made different shapes? But didn't you use the same amount of tiles?

STUDENTS: Yes.

ROBIN EVERAGE: So why do you think it changed?

STUDENT: It changed because of the way we were putting it, um, it kept switching—it kept changing the ways that it was.

ROBIN EVERAGE: Do a little bit more explaining, what do you mean—how you changed it. Can you show me what you're, like, what you're talking about?

STUDENT: We, um, used the tiles and made this long shape. And we—

ROBIN EVERAGE: So, you had them like this where they're nice and long?

STUDENT: Mm-hmm.

ROBIN EVERAGE: So, now what are you changing it to?

STUDENT: Shorter.

ROBIN EVERAGE: Shorter? What about fatter, a little bit maybe? So, you were changing it and because you changed it, what changed for you guys, your area or your perimeter?

STUDENT: Perimeter.

ROBIN EVERAGE: Okay, and I'm going to have to fix you on one thing. Over here we said perimeter was just inches, right? So, what do you think our perimeter needs to be on all the other ones?

STUDENT: Inches.

ROBIN EVERAGE: Inches. Can you switch that for me? Okay, switch that and then I'm going to go get your new piece of paper and you're getting a new area, and then you're going to create everything you can with that one—actually, Ms. [inaudible] got it for us—um, and do your area and your perimeter. Your new area is 36.

STUDENT: I knew it. Because I hear you say it—

ROBIN EVERAGE: You heard me say it? Yeah. All right, can you move those?

STUDENT: What are we gonna do with the crayons?

ROBIN EVERAGE: You can just hold on to them.

STUDENT: Wait, I know, I know, I know. One, two, three, four, five.

STUDENT: Five, 10, 15, 20, 25, 30, 35—

STUDENT: Wait. One, two, three, four, five, six, seven. Seven.

STUDENT: Seven, 14, 21, 28, 3—what? I don't get it.

STUDENT: Okay. Good.

STUDENT: Six, 12, 18, 21—wait no. Six, 12, 18, 24, 36? Shouldn't it be 36?

STUDENT: Change it. Change the shape.

ROBIN EVERAGE: Okay, explain this whole up by two, doubles by 10 thing to me. How do you guys see that and what are you doing? Explain it to me.

STUDENT: So, this one is 14 and it's—and this one, it goes to 16, so—

ROBIN EVERAGE: So, why do you think it did to 16? Wh—If you said it went up by two, why do you think it went up by two? What made it go up by two?

STUDENT: Um, um, probably it's the way that we like, um, mi—like got this away then did that, and then just made it longer.

STUDENT: Maybe because we were adding twos.

STUDENT: This is like that.

STUDENT: Because, see—

STUDENT: If you did it that way, there's this and this, and those are both twos and that would be adding two more if you put them like that.

ROBIN EVERAGE: Okay, and what did you guys see over here with 10s or something?

STUDENT: Um, the 16 adds a 10 because this is 26, and then one plus one is two. And then the six is right here [inaudible]

ROBIN EVERAGE: So, why? Why would that be 10?

STUDENT: Because if, like if we put, um—like if we add—if we do 16 ti—plus 10, it would equal, like, 26 because, like I said, one plus one is two and then the zero—it's a zero. It's like, one, zero, and then one plus—wait. One plus one because it's like 16, plus one, and then the zero to the six is just six.

ROBIN EVERAGE: But what did you have to do to get that to be 10 more? What did you guys do with that shape?

STUDENT: We, like, moved it to one only.

ROBIN EVERAGE: One what?

STUDENT: We moved it like this.

STUDENT: One row.

ROBIN EVERAGE: You moved it to one row?

STUDENT: It'd be like three, two, one.

ROBIN EVERAGE: Okay.

STUDENT: Three, two, one.

ROBIN EVERAGE: All right. So, that paper, your area's 36. Find all the ways and show the area and the perimeter and be ready to discuss what you see is the same and what is different. Okay?

ROBIN EVERAGE: Well, I can see you have different ones, but what are you guys drawing? What are you showing me?

STUDENT: Um, I'm—We're showing you how, like, there's so many ways to part 12.

ROBIN EVERAGE: Okay, but what were my directions? Let's think about that for a second. I said to create a rectangular shape, correct? Would this one be one of those? Hold on, don't erase it, don't erase it, don't erase it. This would be what we would call an irregular shape versus what you call, I guess, a regular shape because this is what would be a rectangle, okay? I like what you did, I see your thinking. I know you got your area, you're getting your perimeter, but I need you guys to go back to just doing regular shapes instead of irregular. Does that make sense?

STUDENT: That one looks [inaudible]

ROBIN EVERAGE: I know but I need you guys going back to just regular shapes. And I like that one.

STUDENT: I have three [inaudible]

ROBIN EVERAGE: Uh-huh. I see what you did for that. Was that your area or your perimeter? When you found this out, was this your area or your perimeter?

STUDENT: Perimeter.

ROBIN EVERAGE: Your perimeter, okay. And what do we write next to perimeter? Not just the number, what else do we write?

STUDENT: Um, um—

ROBIN EVERAGE: What'd you say?

STUDENT: I-N squared.

ROBIN EVERAGE: Which stands for? What does I-N—

STUDENT: Inches.

ROBIN EVERAGE: Inches, good. So, I'm going to have you stop on that one because I don't want the irregular shapes. Right now, we're just doing these shapes, okay? That's a later lesson. We'll get into that one but this is what I want for right now. So, leave this paper alone and I want you to start on this one, okay? And you're going to—You have a new area of 36. But are we going to create irregular shapes?

STUDENT: No!

ROBIN EVERAGE: Okay. I mean, what you did, yes, I see it. You got the perimeter, you got the area, that's fine, but that's not what we asked for this lesson.