MIA BULJAN: So, you did this thing that connected, really, to whole numbers and place value and something they should know.

ERIKA ISOMURA: Right.
MIA BULJAN: What do you think you learned about your students then? Did you feel like, yeah, they've got this?

ERIKA ISOMURA: Yes.
MIA BULJAN: Did you feel like most of them have ... What were you leaving those number talks with?

ERIKA ISOMURA: I felt like they did have it.
MIA BULJAN: Okay.
ERIKA ISOMURA: But I was curious if they have it, just because it was the one times one, or if they really understood the tens.

MIA BULJAN: Yes. So that led you to pick these numbers?
ERIKA ISOMURA: Right.
MIA BULJAN: Which was, what happens when I change from my constant factor being ten and that, like, that zero-ness of it, right?

## ERIKA ISOMURA: Right.

MIA BULJAN: And change it to just any whole number, so you picked three randomly?
ERIKA ISOMURA: Yeah.
MIA BULJAN: Okay, so now what happened?
ERIKA ISOMURA: They also, they saw a lot of the patterns in this, factors. But they had a much harder time. They got $3,30,300$, and then we got here ...

MIA BULJAN: Also 300.
ERIKA ISOMURA: And they also thought it was also 300. Yeah.
MIA BULJAN: Aw.
ERIKA ISOMURA: And then the next person said, "No, 30,300." So then we went back because people were very agitated about this, about how we could have two answers that were the same but the multiplication problems were different.

MIA BULJAN: Okay, well that's good.

ERIKA ISOMURA: Yes, so that was good that there was agitation.
MIA BULJAN: They noticed.
ERIKA ISOMURA: They dug it up and had some conversations about it among themselves. Then the class as a whole said, "We're not happy with that, we want it to be 3,000." And again, because somebody referred back to, "But I'm doing 3 times 1," so these parts, and then adding the zeroes on at the end.

MIA BULJAN: So then they got it into the thousands.
ERIKA ISOMURA: Yeah.
MIA BULJAN: I feel like, so, tell me about this language down here. Like the ones, tens, hundreds.

ERIKA ISOMURA: Mm-hmm.
MIA BULJAN: And then the 1,000, 10,000, 100,000?
ERIKA ISOMURA: Right. So somebody saw that -- they saw a double pattern here. They saw the 1 to 100,000, but then somebody else said, but if you look at just kind of the beginning part, the beginning part before the commas, then we have ...

MIA BULJAN: So it's 1, 10, 100, 1, 10, 100, but this has 3 zeroes. Did they go to 1, 10, 100, 4 zeroes, or 5 zeroes?

ERIKA ISOMURA: They talked about it. They talked about how this "set," was their term, would be the thousands and then the next set would have 3 and 3 zeros to be the millions. You'd have the 1, 10, 100, and then three 3 zeroes, three 3 zeroes, three 3 zeroes. And then billions.

MIA BULJAN: So this is really the first time they're actually talking about place value.
ERIKA ISOMURA: Right.
MIA BULJAN: And this came up spontaneously based on this particular observation.
ERIKA ISOMURA: Right. And I thought it was important, so I pulled a different color and then they said ...

MIA BULJAN: It seems like it's important.
ERIKA ISOMURA: Yeah, they said that they saw the same thing happening in their three section.

MIA BULJAN: That also seems important.
ERIKA ISOMURA: Yeah.
MIA BULJAN: That's legit.

ERIKA ISOMURA: So that was useful.
MIA BULJAN: Yeah, okay.

