STUDENT: We were reading all of them together and we found out here that there's, um...

STUDENT: Eight crayons and she said that [inaudible].

ERIKA ISOMURA: Okay, so you solved it.

STUDENT: Do you agree that if I have eight crayons and we only look at half of them, that would be four crayons?

STUDENT: Yeah.

ERIKA ISOMURA: Yes? And I see you drew it, so thank you for drawing that. My question to you is, is Rosa Linda's problem a little bit more of like the way we did Jesus's problem, or is it more like the way we did Camila's problem?

STUDENT: Is it on here?

ERIKA ISOMURA: So we did Jesus's problem and Rosa Linda's problem. We've been doing them for about a week now.

STUDENT: It looks like Camila's because she had the wholes and she had the wholes, and Jesus didn't have the wholes--he needed parts.

ERIKA ISOMURA: Okay. So what do you think, Camila? Your problem on the example, you had the whole string and were taking part of it. Does it seem like Rosa Linda had the whole amount of crayons and was taking part of it?

STUDENT: Yeah.

ERIKA ISOMURA: Yes? So you agree with Elijah?

STUDENT: Uh-huh.

ERIKA ISOMURA: Okay, great! So when I walk away I want you guys to have those conversations with each other. Not with me saying it but maybe you can be the team leader and say, "So Camila, is this more like your problem or more like Jesus's problem, and why?" And then you can come to agreements.

STUDENT: Okay.

ERIKA ISOMURA: Okay?

STUDENT: Mm-hm.

ERIKA ISOMURA: All right.

STUDENT: Okay. So we drew four crayons and we're going to use [inaudible].

STUDENT: You agree that it's like yours?

STUDENT: Mm-hm.

STUDENT: It's like yours because you had...you didn't need any pieces because you already had the whole, and Jesus needed the pieces. So all you had to do was split the whole in half and...but Jesus's, he needed the pieces so he can't split it in half, so it's more like yours.

STUDENT: Yeah.

STUDENT: So Rosa Linda is drawing a picture for her mom. She has eight crayons but it says to use only one half of the crayons. How many crayons will she use? So it's eight and she only needs one half of the crayons.

STUDENT: Rosalinda is drawing a picture of her mom. She has eight boxes of crayons. So I need to draw... So she only needs one half. So what we have to think here is what equals eight because...and it's actually [inaudible] as four plus four equals eight. So that would actually be a half. So four is a half of eight because then you have four boxes left, and that's what equals a four and the eight. Yup.

STUDENT: Okay.

STUDENT: Okay. So now, Randy, it's your turn.

STUDENT: Randy is making a kite. He will need six pieces of string. Each two thirds of a foot long. How much string will he need altogether? So how much does he need?

STUDENT: Hm. So he only needs...

STUDENT: He will need six pieces of string. Each two thirds of a foot long. How much...

STUDENT: Oh! So it's six.

STUDENT: Yeah, draw a six and put it in half. Yeah.

STUDENT: No, wait. But first we have to do... So each, um... Well, only, um, two thirds but three three is one full. So instead of just cutting it like two, it should be a half of one box since that's a whole. That's a whole, three. The two thirds, so she needs six pieces of string. Each... How much string does he need all together?

STUDENT: I see it.

STUDENT: And then this is the... So this is the one that's going to be left. She will need... So she'll actually just need two of those pieces.

STUDENT: Two pieces?

ERIKA ISOMURA: Clearly that picture matched and it kind of confirmed it too that your original idea was correct. Okay? So you guys can start moving on to the next step.

STUDENT: Let's just cut it and then put it...

STUDENT: You want to do half and I do half?

STUDENT: Yeah, sure. So let's see. Since this one is a four and the problem is this one, right? Because this one is half of eight is four. And then on this one will be six pieces... It will be this...

ERIKA ISOMURA: 1, 2, 3, 4, 5, 6, 7. Okay. And the problem said eight crayons?

STUDENT: Yeah.

ERIKA ISOMURA: Okay. So you have eight crayons, which is funny because it's your problem. Okay, so you have your eight crayons and then what were you thinking?

STUDENT: And then, like, since she...since I needed one half, I took one half of each crayon.

ERIKA ISOMURA: Okay, can you show me where your one half that you took was?

STUDENT: So I took this half from this crayon and I took this half from this crayon. Like, each half is from one crayon.

ERIKA ISOMURA: 1, 2, 3, 4, 5, 6, 7, 8. Okay, I see that.

STUDENT: Then I have eight two's because the denominator always stays the same.

ERIKA ISOMURA: Why does the denominator always stay the same?

STUDENT: Because it's the same, always denominator right here in the fraction.

ERIKA ISOMURA: But why would...so I see that these are all two's, but how... Remember in the beginning some people were saying two plus two, plus two, plus two, plus two? How come you're not doing that? How do we know that the answer here at the end is going to still have the denominator of two?

STUDENT: Um, well, because the two, if it always stays the same so it's a two.

ERIKA ISOMURA: So what does the two tell us?

STUDENT: Um, it has two, like, two pieces.

ERIKA ISOMURA: Two pieces and the...?

STUDENT: And the whole.

ERIKA ISOMURA: And the whole, okay. So it's like the same size pieces all the time?

STUDENT: Yes.

ERIKA ISOMURA: And when we get to the end it's still the same size?

STUDENT: Yeah.

ERIKA ISOMURA: Okay. And you had eight over two and then I see you turned that into a division. So we talked about the connection between fractions and divisions. And you got an answer of four?

STUDENT: Yeah.

ERIKA ISOMURA: Okay. I see how you did all of that. So my...the thing that I'm still wondering about is, if you actually had a box of crayons and you're getting half of those crayons, would you snap all of your crayons in half and then take half of the blue, half of the red, and half of the green?

STUDENT: No.

ERIKA ISOMURA: What would you actually do if somebody said, "Here's eight crayons. Take half?"

STUDENT: Uh, I would, like...probably I would, like, four because, uh, the, like, so if I do two times four equals eight, so I would just get four crayons.

ERIKA ISOMURA: Oh, which is interesting because it's the same answer you got by snapping all the crayons in half. But in the actual world we live in, would you be more likely to do the "snapping in half" version or the "divide by two?" I'm taking half of the crayons and that's four.

STUDENT: Divide it by two. Taking the crayons.

ERIKA ISOMURA: But isn't that puzzling that they came out the same?

STUDENT: Yeah.

ERIKA ISOMURA: It's a little interesting. I would think we may have to dig a little more into that--why they turned out the same even though they're kind of two different pictures in my imagination. Okay. I like how you reason your way through that though. Thank you for sharing that.

STUDENT: You're welcome.

STUDENT: Randy is making a kite. He will need six pieces of string. Each two thirds of...