MICHELLE KIOUS: In a minute, I'm going to have you give your paper to the group helper, but I need everybody to get out whiteboards and markers as well. Go ahead. Marker and eraser are out and you're sitting quietly facing forward. Um, so we did some work on the whiteboard yesterday, and I had you do some drawings and talk to your partner about them. So we're going to do that again, um, but I'm going to give you some different questions today. So the first thing is I want you to draw a line segment with two endpoints. And it should cover most of your whiteboard. So a line segment with two endpoints. Okay. So I would like to see those end, endpoints indicated by little dots. Set, show. Okay, I definitely see line segments with two endpoints. So now I'm going to ask you to do something with that line segment. I would like you to show me something on the line segment. So I would like you to show me three-thirds. Can you show me marks to show three-thirds? So I want that line segment divided into three-thirds.

You're going to change? So I want the whole line segment divided into three-thirds. Your line segment is divided into three-thirds, and I want you to be able to explain to your partner how your line segment represents three-thirds. So you're going to say, "This represents three-thirds because..." and I want you to be able to give your reasons. So we'll have a group of three over here. But you're going to say, ah, "Your line segment represents three-thirds because ..." and you can point out things on your line segment when you're sharing with your partner. So I'm going to have the even persons start. Turn and talk to your partner.

STUDENT: I divided the, the whole line segment into three thirds by putting two lines between the line.

STUDENT: Kyle said, uh, he cut it up into three equal parts.

STUDENT: This represents three-thirds because on the bottom they all have three, so, uh, I start off with one-thirds, and I put the two-thirds in the middle, and then, uh, I ended with three-thirds.

MICHELLE KIOUS: Three-thirds. And I'm thinking about equal parts. And I saw lots of different answers, so I'm going to have a few people explain, and I'm going to ask you to come up and share. So I'm going to ask for, um, Hazel, if you could come up and share yours? Come to the front. And go ahead and say your sentence.

STUDENT: This represents three-thirds because, um, I did the line segment and I divided it, I divided it into three equal parts.

MICHELLE KIOUS: Thumbs up if you see three equal parts. Thumbs down if you disagree, if you do not see three equal parts. Can you show us the three equal parts? I...are you changing your mind?

STUDENT: Yeah.

MICHELLE KIOUS: So she's changing her mind. So I saw some thumbs up and thumbs down. Okay, how many equal parts do you see if you don't see three? The...on your fingers, show me. Oh, oh. Okay, so

I'm going to have somebody else come up. Victor, can you bring yours up? And I'll hold it. Can you tell me what you did? This represents...?

STUDENT: This represents three-thirds because I imagine it like boxes. I put a box here, a box here, and a box there. And then that's three-thirds because this is one-thirds, two-thirds, and three-thirds.

MICHELLE KIOUS: Thumbs up if you see what Victor was doing. So we're talking about equal parts. Keep your thumb up if you see three equal parts. Can somebody come up and point out those three equal parts on Victor's? Adalia, come on up. Okay. All right, if you want to change your mind, you can. If you want to keep yours, you can, but I'm going to have you do something with this diagram, so if you want to change your diagram, go ahead and do that. And then I'm going to ask you do something with it, this diagram.

I would like you to put a star to indicate where two-thirds would be on your line segments. So if you need to redo, you can redo. I want you to put a star where you think two-thirds would be on your line segment. Those of you that looked at Cida's and Victor's diagrams, think about where two thirds would be...I'm sorry, Hazel's. Sorry. So I want the star to be on the line. Where exactly on the line would two-thirds be? All right, I'm going to have you share with your partner why that represents two thirds, and turn to your partner. Odd person start.

STUDENT: This represents two-thirds, two-thirds because it's one over here and two over here. I mean, two over here. And...yeah.

MICHELLE KIOUS: So I'm seeing some people that did divide it like this. And then I'm seeing some people that, um, put a star here for two-thirds and some people who put a star here for two-thirds. So I'm going to say that this would be A and this would be B. And I want to know who you agree with. So, hold on. Think about it, talk who you agree with and why. Agree with person A or person B. Okay, turn to your partner. Even person start.

STUDENT: I agree with A because if you, like Victor said, if you drew boxes over there and over there.

STUDENT: If the line is the end of ones, of one-third, so this is two-thirds.

MICHELLE KIOUS: So this is a different kind of model than we did yesterday, because yesterday we were working on area models. This is more of a measurement model, measuring the distance from one place to another. You have two endpoints. So thumbs up if you agreed with A. Near your body. Okay, thumbs up if you agree with B. Anybody else who, um, anybody who agreed with B, and that wants to say something back to Kyle, they disagree? Devin?

STUDENT: Uh, I disagree with Kyle because the, because the B has to be in the middle because the one-thirds is over here, and then three-thirds has to be at the end, and then you put, and then you put the two, and then you have to put the two-thirds in the middle. And...but then it's not because the, the three-thirds can't be right there. It's not...it can't be on the line.

MICHELLE KIOUS: Can't be on the line?

STUDENT: Yeah.

MICHELLE KIOUS: It can't be right on the line? Benson, I saw that you had it on the line. So why do you think it should be on the line?

STUDENT: It should be on the line because each piece represents one third.

MICHELLE KIOUS: Each line is representing one-third of the whole? Can you come up and show?

STUDENT: This represents one-third, and this represents two-thirds.

MICHELLE KIOUS: So what would...? Anybody think if in, um, Benson's description, what would we put here? How many thirds would that be? Kurt? Hmm. Is there anything before this?

STUDENT: No.

STUDENT: Yes.

MICHELLE KIOUS: No. Okay. All right. So I'm going to have you think about that.