MALLORY WILLIAMSON: So, we're going to take a look at this—number two, and I'm going to actually change the smart board a little bit because we might have some different models coming up. So number two asks us to take the amounts that are greater than one and combine them. So, can someone talk to me about how they figured out what fractional parts were greater than one? Omar. Take your time. How did you know what to combine with those amounts greater than one?

STUDENT: I added two and one pounds, and the ones greater from it.

MALLORY WILLIAMSON: Okay, so let's take a look at our line plot. I know mine's not quite finished. So, where did your eyes tend to go when you're looking at fractions that are greater than one? Because I heard you say one and one-eighth was one of them. So, how did you know that one and one-eighth was greater than one?

STUDENT: Because one one-eighth is higher?

MALLORY WILLIAMSON: So, it's one-eighth greater than one. Okay? So, when we subtract the two amounts, you do get a difference of one-eighth, okay? That's [inaudible]. So, all of the fractions to the right of that one is going to be greater than one. Good, I like how you explain that. That it's one eighth higher or one-eighth greater than one. Okay. That's a great observation. Okay, so when we found the combined solution, I want to know if you had the same solution as someone near you. So, share with someone beside you on the carpet what was the combined total of all the fractions greater than one.

STUDENT: [inaudible]

STUDENT: How come?

STUDENT: [inaudible]

STUDENT: And I did mine—I probably have this—

STUDENT: Where did you get the two and the fourths?

STUDENT: Um.

STUDENT: Oh, I got it. I got it. Yeah.

STUDENT: I did two and—

STUDENT: Well, it's the same thing we all did.

STUDENT: Yeah.

STUDENT: I did two of the—

STUDENT: Yeah.

STUDENT: And I had to multiply to get the [inaudible]. It's easier and faster.

STUDENT: I used the [inaudible]. I did it like [inaudible]. So, is it three and then three and eighths? So, three and the eighths.

STUDENT: Did you—those are—how did you—

STUDENT: How did you do that? That doesn't make any sense.

STUDENT: [inaudible]

MALLORY WILLIAMSON: Okay, so I really want to talk about the model part. So, for the sake of time, I might add these differently than you, but as I'm adding these up, can you do me a favor with your pencil and kind of check off the fractional amounts that you added. Some may have added the ones last, some first, so as we go, just kind of check off what you are adding up. Okay. How did you guys do?

STUDENT: Good.

MALLORY WILLIAMSON: Now I noticed group two, can you guys share with me? I know that Caden, you recognized something, an error or mistake that you made, which I'd like you to share, which is okay. So, what error or mistake that you noticed that you guys made as a group?

STUDENT: We made the mistake of thinking those three—three [inaudible] pounds—

MALLORY WILLIAMSON: Instead of the two?

STUDENT: Instead of the two.

MALLORY WILLIAMSON: Okay. Which is not too far off. You have the three-eights. Okay. So, I was telling to one group, as you add these off, one strategy I would suggest with you guys is to check off the amounts as you add them, just to kind of keep your thoughts organized because there's a lot of fractions going on. Okay? All right, so I want to take this. How can we use a strategy to find this solution without using any numbers? Okay. So, Angel, would you show one way on the smart board. Angel's way was actually the most popular. So as Angel shows you his way, is it okay if I show you my way?

STUDENT: Yes.

MALLORY WILLIAMSON: Now, whose way is correct?

STUDENTS: Both.

MALLORY WILLIAMSON: Both. So, don't start judging Angel because he doesn't look like mine. And Elizabeth, you might want to scoot back a little bit, so he's got some space. Take up as much space as you need, what you need, okay?

STUDENT: How did we say this?

MALLORY WILLIAMSON: Huh? See, even your teacher makes mistakes. Let's do this. Okay, so while Angel is working on his, my number line is not complete but I'm going to show you guys this. If we had this like giant chart paper, it would probably be incredibly long or take up the length, but I want to show you how I started off with. I'm a number line type of person, so with me, what we could start off with is all of the whole numbers where you're starting off with one and one plus one, is two. Okay?

MALLORY WILLIAMSON: So, when you're talking about going from zero to one, that's one. And one—from one to two, that's adding another one, so that's two whole numbers, and so from there, you can add one-and-one-eighth. So, two plus that one-and-one-eighth is three, okay? So, I can keep going on my number line until I get to nine-and-three-eighths. That's a really long strategy, but I can easily see all these whole numbers that I'm adding up. If I'm looking at my whole numbers, I've got two ones that were plotted on the line plot. So, one plus another one gives me that two. Okay? And two plus one-and-one-eighth is three-and-one-eighth, okay? So, I can keep going until I get to the nine-and-three-eighths. But like I said, that's probably a really long number line, okay?

So, let's take a look at what Angel's got so far. I just want to at least recognize it for a quick second. So, I'm going to go to this side, Angel, if you don't mind. All right, so—You want to step off to the side for a second? All right, Angel, what amount did you start with?

STUDENT: Um, one-and-one-eighth.

MALLORY WILLIAMSON: Okay, so one-and-one-eighth. Where did you draw one-and-one-eighth? Oh, yeah, one-and-one-eighth plus one-and-one-eighth plus one-and-one-eighth plus one-and-one-eighth equals what? There you go.

STUDENT: There's three-and-three-eighths.

MALLORY WILLIAMSON: Okay, so, just to kind of show you where Angel's going. This is the three-and-three-eighths that he started off with, okay? Now, let's take it—Look at Angel's whole numbers. I know it's easy to take a box and shade it in, but when we look at parts-to-whole, with our whole number, to get a more accurate answer, what could our one whole be divided into? Sydney?

STUDENT: Eighths.

MALLORY WILLIAMSON: Eighths. You want to divide it up? Divide your whole number into eighths. So, these that you shaded in, we want to divide them into eighths. So, what Angel is doing is, he's modeling all of the amounts that he added together. So, one-and-one-eighth plus one-and-one-eighth plus one-and-one-eighth is three-and-three-eighths. So, he modeled three-and-three-eighths. Be careful about this because a lot of you guys want to add it and then model how your solution looks. So, like, when you add one-and-one-eighth plus one-and-one-eighth plus one-and-one-eighth three times—you can sit—you get three-and-three-eighths. He modeled his solution, but when you're going through this, and you have your eighth, okay, I have one-and-one-eighth. I want to shade in the one-and-one-eighth. And then from here, we need to add another one-and-one-eighth, yes?

STUDENTS [collectively]: Yes.

MALLORY WILLIAMSON: So, how many do I have to shade in to equal one-and-one-eighth? Instead of drawing all over again one-and-one-eighth, how much do I need to add on? So, here's another way of wording it. One-and-one-eighth is a mixed number. What's another equivalent number that's equal to one-and-one-eighth? Roberto?

STUDENT: One-and-one-eighth is equivalent to one-and-two-sixteenths.

MALLORY WILLIAMSON: So, one-and-two-sixteenths. Izzy?

STUDENT: Nine-eighths.

MALLORY WILLIAMSON: Nine-eighths. Okay. So, from here, I can shade in nine more. So, here's the one-and-one-eighth. That's eight-eighths, which what is eight-eighths equal to?

STUDENTS [collectively]: One.

MALLORY WILLIAMSON: One. And then I'm going to put another one-eighth there. Okay. So, now what do I need to do?

STUDENT: Divide.

STUDENT: Add another one-and-one-eighth.

MALLORY WILLIAMSON: Add another one-and-one-eighth. Okay, so, I need to add on nine more. One, two, three, four—. There's only room—There's only room for six.

STUDENT: Add another.

MALLORY WILLIAMSON: Say it.

STUDENT: You have to add another box.

MALLORY WILLIAMSON: I have to recreate another array. So, six, seven, eight, nine. So that's the total of my three-eighths. Be careful of not just modeling your solution but using a model to find that solution. Okay? All right. Go ahead and try number three.