TRACY LEWIS: Okay, here we go. This mathematician did something else. Let's just take a look at number 1. You get 15 seconds. Take a look. Look at how they figured the problem out. Okay. Turn and talk to a partner.

TRACY LEWIS: Okay, wrap up your ideas, sit down, so people can see. 3, 2, 1. Eyes up, please. Okay, so! We already know that mathematicians look for numbers, pictures, words...

STUDENTS: Numbers, pictures, words, and labels!

TRACY LEWIS: and labels. Let's go a little bit deeper, though. How is the mathematician using these numbers, the pictures, and the words? Are all of them working together to make sense and come to an accurate answer? I don't know. Let's see.

TRACY LEWIS: Tell me, what did you share? I see the same hands. What did you share. London. What'd you all talk about?

STUDENT: We talked about, we see the number sentence...

TRACY LEWIS: Okay, and what about the number sentence? Use your words.

STUDENT: They said they did 1, 2, and 8 and got 4.

TRACY LEWIS: Okay, so you're actually looking at the words down here. What do you think these words go with? What are they talking about? What are these words actually describing? Were you guys able to figure that out?

STUDENT: No.

TRACY LEWIS: No, not yet. Okay. What else did you talk about? Giovanni.

STUDENT: They have, they have some pictures and they have lots of labels.

TRACY LEWIS: They have pictures and they have lots of labels.

STUDENT: So the labels give us some, like a clue so we know what they're talking about.

TRACY LEWIS: Okay, so. These labels do give you a clue as to what this mathematician is talking about. Which labels are you looking at in particular? I see you, sit on your bottom please.

STUDENT: It says, like 58 miles, 34 miles, and it says school, and it says highway.

TRACY LEWIS: Oh! Okay. So let's talk about, let's go ahead and just talk about number 2. Okay.

TRACY LEWIS: Let's take a look at number two. Yes, Sarah.

STUDENT: London read it wrong. That is a minus. 12 minus 9.

TRACY LEWIS: That is a minus. This is 12, supposed to be subtract, and then the 8. But let's take a look at it. Yes, Iyanna.

STUDENT: On number 1?

TRACY LEWIS: Mmm-hmm?

STUDENT: The person... this is the way I saw what the person did. On the first part? I saw the person put 63, and then they had 19, then they split up the numbers, and the number was too much, so they put the 1 on top of the 6.

TRACY LEWIS: What do you mean, the number was too much?

STUDENT: the number 19, so they put the 1 on top of the 6.

TRACY LEWIS: Okay, so you're talking about this?

STUDENT: Yes.

TRACY LEWIS: Okay. All right. Yes, D'wone.

STUDENT: Well, number 2? Well, I know about the number sentence, they said 28 plus 96 plus, I mean 58, and then they chopped it up in the middle, and they got, um, 34.

TRACY LEWIS: Okay, so we're going to actually talk about this, because you said 28, 92, 58, and then all those things got split down the middle, and you think that's how they came up with 34? All right.

TRACY LEWIS: So. This brings me back to my point. Are the pictures and the numbers and the words all working together? Hands down.

TRACY LEWIS: Let's look at number 1. There is a picture, and the picture is labeled. This is 32

STUDENT: minus...

TRACY LEWIS: No, this is not a minus, this is 32, and this means it's supposed to go with this figure. Looks like a...

STUDENTS: girl.

TRACY LEWIS: So maybe this mathematician was thinking 32 girls and...

STUDENTS: 31 boys.

TRACY LEWIS: 31 boys and 10...

STUDENT: Males

TRACY LEWIS: 10 more males, and 9 more..

STUDENT: females!

TRACY LEWIS: And 9 more females. These are bigger, so these are probably the parents. Now, one thing we do know that this mathematician did figure out, they figured out this operation right here.

TRACY LEWIS: Where did this come from? Where did that come from? Ka'Lon.

STUDENT: It came from how many more people are going to the field trip?

TRACY LEWIS: I didn't see how many more people are going to the field trip. I don't see those words. Where'd it come from. Isaiah?

STUDENT: Wait, what was the question again?

TRACY LEWIS: How did the mathematician know that they're supposed to do addition? Where did that come from?

STUDENT: It came from....

TRACY LEWIS: Can we come back to you? Giovanni.

STUDENT: How many people.

TRACY LEWIS: How many people, meaning that you're supposed to be counting what.

STUDENT: The people.

TRACY LEWIS: You should be counting the people. So. The number 63 came from the people, and we have 19 parents, and we know that parents are also people. How many tells us that we are actually supposed to...

STUDENTS: Add.

TRACY LEWIS: Add. Most of you did really good with that. Now. Take a look at the words. I did 3+9 and got 12. I guess this is a scratch out. What would we do if this was a 1.

STUDENTS: 12.

TRACY LEWIS: 12. I did 1+6+1 and got 8. Do we know where this 1 6 1 came from? Where did that come from? What are these words describing? What are they describing, Jocelyn?

STUDENT: They're describing the... Giovanni had how many people. So they counted until they put 8, and then they added...and they added.. ay!

TRACY LEWIS: Okay. Are they describing the picture?

STUDENTS: Yes/ no!

TRACY LEWIS: Can I get a signal? Are they describing the picture? Are these words telling us about this picture? I see some signals that say some of you are not quite sure. And some of you are saying absolutely not.

TRACY LEWIS: So I see 32, 31, 10 and 19. Are these numbers in this picture being described by these words?

STUDENT: Yes.

STUDENT: No.

TRACY LEWIS: No, they're not. I did 3 + 9. Where do you see 3+9. Where do you see that? Diamond, I'm up here. Where do you see 3 + 9? D'wone, I need your eyes up here. Victoria.

STUDENT: I think that it is right, because it is...

TRACY LEWIS: Where do you see 3 + 9? I'm looking for somebody to answer my question. Where do you see 3+9?

STUDENT: Because they had, if you look up there, they have 3+9. 3 on top and the 9 on the bottom.

TRACY LEWIS: Okay, stop. So there's 3 up here and 9 up here. So these words are telling you how the mathematician set up the problem. So 3 plus 9 and they got 12. Now they're going to tell you what they did with the 12. Well that would explain this little scratch out, because there's a 1 up here and 2 down here.

TRACY LEWIS: I did 1 + 6 + 1 and got 8. Where is that? I almost pointed to it. Where is it? You gotta solve this mystery. What is this mathematician talking about? What is this 1, 6, and 1? Where did it come from? How many of you are not sure. Okay. That's good to know. Where did it come from, Iyanna.

STUDENT: The 1 came from the 12...

TRACY LEWIS: Okay, so, I'm noticing that you all are not sure, but your eyes are not up here.

STUDENT: The 1 came from the 12, and I think they took the 1 away from the 12 because it would have been a too big, a too much big of a number, because they would have got the wrong answer.

TRACY LEWIS: So Iyanna is saying that the 1 came from the... what place value is this? The 1 in the....

STUDENT: Tens place.

TRACY LEWIS: There's a 1 in the tens place, there's a...

STUDENT: 6

TRACY LEWIS: 6 in the tens place, there's another...

STUDENTS: 1

TRACY LEWIS: 1 in the tens place. And they got 8. It does have an addition symbol. It says I came up with eighty---STUDENTS: 2.

TRACY LEWIS: I came up with 82. So these words are telling you how they did this problem.

STUDENT: That's also another way you know how you're supposed to add it.

TRACY LEWIS: Okay.