Video Transcript

HILLARY LEWIS-WOLFSEN: Let's look at another student answer. We got this wonderful diagram. I want you to just look at this, think about it. Private think time. Think about this one…I'm seeing a few private thumbs, remember that when you and your partner are both ready to share, you may share.

STUDENT A: So, I think he meant there's 18 chocolates, which doesn't make sense, because in total, there's 9 cups in all. I think he misunderstood the question, because he probably thought there were 9 cups of everything.

STUDENT B: Oh.

STUDENT A: And then like, 9 cups of cream, and then 2 cups… I don't know what he meant, but, he's wrong.

LINDA FISHER: So I didn't hear what you think. What do you think of the diagram?

STUDENT B: Uh, I was going to say what he said.

LINDA FISHER: Well, I know, but I didn't hear, so, can you say it again?

STUDENT B: I said that she misunderstanded, she misunderstood the question just like the first person. Because in all, there's 9 …

STUDENT A: Probably thought, like, since there's 2, and the problem said 2 cups of chocolate, he probably thought every 2 cups there's like 9 cups or something, and then that's how you got 2 * 9 = the 18 cups, but…

HILLARY LEWIS-WOLFSEN: Okay, Deborah? What would you like to tell us about this one?

DEBORAH: Because the student thought, um, misunderstood that the 9 cups was only for the cream, so then he multiplied another one, because there are two ingredients, to get the answer.

HILLARY LEWIS-WOLFSEN: So they used the 9 cups from there, but say, what was the rest of that? Really loudly, so I can hear.

DEBORAH: He thought that 9 cups is used for 1 ingredient.

HILLARY LEWIS-WOLFSEN: 9 cups is used for 1 ingredient? Do you know which one?

DEBORAH: Um, for cream. And then he multiplied another one for the chocolate, and then he got the answer,18.

HILLARY LEWIS-WOLFSEN: Got an answer of 18. Do you know why they would have multiplied this one by, by 2?

DEBORAH: (shakes head)

HILLARY LEWIS-WOLFSEN: No. Would you call on somebody else to, to help with why they think that might have happened?

DEBORAH: Jason.

Jason: Um, because I think that person got it mixed up, by thinking that the other times the 2 cups chocolate, to the 9, the answer, of the in total of 9 cups, the answer of 1 cup of cream to the 9 whole, to the in total of 9 cups, so then he, um, so he made 27 cups.

HILLARY LEWIS-WOLFSEN: Okay, so a total of 27 cups, rather than the total of 9.

HILLARY LEWIS-WOLFSEN: I heard a few of you, as I was walking around, saying things like that this person was more on the right track than maybe the first two answers. Did anybody want to speak to that? Because I think that I heard that from several parts of the room. Timothy?

TIMOTHY: Um, basically? If, instead of 9 cups in all, it would be 27, he would have been right. He used the 9 in the wrong way.

HILLARY LEWIS-WOLFSEN: He used the 9 in the wrong way?

TIMOTHY: By multiplying the, the 9, he multiplied the 2 and the 1, and then add them up. So that you get 27. But if in all, if he had done that, if he'd known that there were 27 cups, he would have been correct.

HILLARY LEWIS-WOLFSEN: Okay. Your name again… that's right, Charlotte.

CHARLOTTE: Um, it's basically like the first problem, he thought it was 9 cups of each, so then it said 2 cups of chocolate, so, basically he multiplied 1 cup and then he uses 9 cups for cream and then 2 cups of the 9 cups of chocolate.

HILLARY LEWIS-WOLFSEN: Right, okay. All right, thank you, Charlotte. And I see, I know it begins with an A, Ashank.

ASHANK: Whoever did the problem, they could have like, um, they could have just added the 2 chocolate, the 2 cups of chocolate and the 1 cup of cream, which would have equaled 3, and then divided it by 9, which would, which would actually, for every, you would get like 3, since 3 * 3 is 9, you'd get 3, um, 3's, and for every 3 there'd be, like, 2 cups of chocolate and there'd be 1 cup of cream, which would have, eventually, if you'd have added up all the 2's, you would have gotten (inaudible) cups of chocolate.

HILLARY LEWIS-WOLFSEN: Okay… he would have gotten what?

ASHANK: the cups of chocolate.

HILLARY LEWIS-WOLFSEN: The cups of chocolate. Okay. I'm not sure, I understood you were saying if you added up the 1 cup of cream and 2 cups of chocolate…

ASHANK: Yes, which would have equaled 3.

HILLARY LEWIS-WOLFSEN: So this here (circling boxes) would have been 3 cups?

ASHANK: Yes.

HILLARY LEWIS-WOLFSEN: Okay.

ASHANK: And then for every 3 cups, there'd be 2 cups of chocolate and 1 cup of cream.

HILLARY LEWIS-WOLFSEN: Okay, and so for this grouping of 3, here's where you see your 2 cups of chocolate and 1 cup of cream.

ASHANK: Yes.

HILLARY LEWIS-WOLFSEN: Okay. Did you have something to add to that?

JAKE: The answer would be to add those two together would equal 3, as he said,

HILLARY LEWIS-WOLFSEN: Uh huh…

JAKE: and you would have to divide it by 9, because that's your number of total, and then you would get 3, and that's how many servings he does. Then you need 2 cups of chocolate and every 1 cup of cream, you have to multiply, like 3 by 2 to get 6. It would be 6 cups of cream.

HILLARY LEWIS-WOLFSEN: 3 by 2 to get 6. Okay. What did you want to say, Saurabh?

SAURABH: What Jason said, so then, uh, like what he said. There would, there's 3 cups, 3 cups of the ingredients in the chocolate? So then, um. So then he said that there's 9 cups of the, uh, ingredients. But they, he has to divide it by 3 because there's in the first row there's 3, uh...

HILLARY LEWIS-WOLFSEN: In this, that Ashank was telling us about?

SAURABH: Yeah. So then, that would equal 3. But since there's, uh, it's asking, uh, how many, how many cups of chocolate he used in the recipe, they-- you have to multiply it by 2.

HILLARY LEWIS-WOLFSEN: Multiply… this by 2? And that's what we were hearing over there, multiply it by 2 to get 6. And Andrew, what did you want to add?

ANDREW: Basically following Ashank, but after he added the 1 cream and 2 chocolates, equals 3, he does that, keeps doing that until he gets a total of 9.

HILLARY LEWIS-WOLFSEN: Oh!

ANDREW: When he counts up all the chocolates.

HILLARY LEWIS-WOLFSEN: So you're saying we need to do this part…

ANDREW: Yeah, and then you keep, like, circling groups of 3 until you get a total of 9.

HILLARY LEWIS-WOLFSEN: Until you get a total of 9.

ANDREW: Yeah. And then you count up all the chocolates, and that would be 6 chocolates.

HILLARY LEWIS-WOLFSEN: Oh! So that's where you see the 6?

ANDREW: Yeah.

HILLARY LEWIS-WOLFSEN: Okay, interesting! Did you want to add onto that, Ashank?

ASHANK: Well, basically, my answer was also 6.

HILLARY LEWIS-WOLFSEN: Okay. What did you want to say?

STUDENT: I agree with Andrew, but then, um, especially the part where he thought, based on the 9 cups of the ingredients, he multiplied it by 1 cup of cream, so and then, since each cup of cream, there's 2 cups of chocolate, so then multiply 2 cups of chocolate by 9 cups of cream, so they got 18 cups of chocolate.

HILLARY LEWIS-WOLFSEN: So it sounds like a lot of you could have helped this student with the, what they already knew, you could have helped them pretty easily to get to the right answer.