

Lesson Part 2a

MIA BULJAN: Your job is to read it, make sense of it, and solve it. So you're going to need a tray and your math bag to do that. Celine and Samantha are going to pass out trays. Everybody else, I'm going to come by and you're going to pick a card, any card.

STUDENT: Sally bakes, baked the fifteen cookies. She put them in three, uh, three bags. How many bags did she make? Put these together. And one more three.

OBSERVER: Can you explain how it works?

STUDENT: I put them in threes because I know three times five equals fifteen. So I put them in three, so I'll put them all together. So I put my answer forty-five. And this one. All right. Done with it.

OBSERVER: Can you read your problem?

STUDENT: Huh?

OBSERVER: Can you read me the problem?

STUDENT: Okay. It says right here Sam's dad bought 24 hot dogs for Sam and his three friends. How many hot dogs can they each have?

OBSERVER: Can you explain your model?

STUDENT: Um, I just go like, these are the 3 friends, and this is Sam. And I have 24 cubes here. 1, 2, 3, 4, 5... (Counting) Each one got six.

STUDENT: Debbie wants to give her 5 friends 4 balloons each. How many balloons must she buy?

ERIKA ISOMURA: How many?

STUDENT: So I just, this is the 5 friends. These are the 4 balloons. So I just did 4, 8, 12, 16, and 20. So.

STUDENT: Sally bakes 15 cookies. She put them in, put them, bags of...3 bags of cookies in each, um, 3 cookies in each bag. And how many cookies did she make?

ERIKA ISOMURA: Okay. And explain your model there.

STUDENT: It's because she has 15 cookies. So I have 3 cookies in each bag. So I think if I have 15, how many bags should I use? So instead I used 5 boxes. It works. So it might say $3 * 5 = 15$. And that's how I got my answer.

MIA BULJAN: 7 friends and you're giving them 8 pieces of candy? What did you decide?

STUDENT: That, so when I put them all like that? Then I had 8 on each.

MIA BULJAN: So tell me what these flats are again?

STUDENT: The friends.

MIA BULJAN: And how many friends were there?

STUDENT: Three.

MIA BULJAN: And you're giving them how many hot dogs?

STUDENT: Eight.

MIA BULJAN: Eight. And do you want to get a piece of paper and write down what you did?
Okay.

STUDENT: Where are the papers?

STUDENT: Over there.

MIA BULJAN: We just put them somewhere.

MIA BULJAN: What number are you making? When you make two 10s and 4 blocks, which
number are you making?

STUDENT: 24?

MIA BULJAN: And does it say to make 24 in your problem? 24 what?

STUDENT: Cents?

MIA BULJAN: 24 cents. Okay, show me what that would look like. Oh, he got a different answer.
Can you two work together?

STUDENT: He has the same problem as me.

MIA BULJAN: He did it slightly differently. Can you guys get together and talk about what you
think the problem means? Take your trays down to the carpet and work together.

MIA BULJAN: What are you thinking?

STUDENT: So I have 24 here and then I put one on each one, to make sure how much I have.

ERIKA ISOMURA: Can you read the question real quick?

STUDENT: Uh...

ERIKA ISOMURA: Would you read the question?

STUDENT: Which one, this one?

ERIKA ISOMURA: Yeah, just read that.

STUDENT: Sam's dad bought 24 hot dogs for Sam and his 3 friends. How many hot dogs can
they each have?

STUDENT: There, there's eight on each one.

STUDENT: Yeah, but where's Sam?

STUDENT: It does count Sam, because it says here, Sam's dad bought twenty-four hot dogs for Sam and his three friends.

STUDENT: Not on mine. It says, "How many hot dogs can they each have?"

MIA BULJAN: Read the part that came before that, Enmy.

STUDENT: Sam's dad bought twenty-four hot dogs for Sam and his friend, his three friends.

STUDENT: For Sam and his three friends.

STUDENT: Oh.

STUDENT: Like this.

MIA BULJAN: Well Enmy, do you agree with his interpretation of the problem? Do you think it's just for his friends, or for Sam and his friends?

STUDENT: I have Sam and his three friends, and I have twenty-four here, and I just take each one on this one, this one.

STUDENT: Well, it's because I have twenty-four, it won't, I have some right here and it'll just be like one equal group that has the same amount like the other ones. That's why.

MIA BULJAN: So, you would want eight, eight, eight, and then Sam would be empty? Thank you. Okay, so Esbin? She's going to try it your way and see if it works, but I don't want you to tell her what you did, okay? Just let her try and figure it out. No coaching.

STUDENT: So, I'll put one like that.

STUDENT: That is right?

MIA BULJAN: You think that's the right way to interpret the problem? When you do it, what happens?

STUDENT: That, they'll have like, the same amount?

MIA BULJAN: Is it still eight for each person?

STUDENT: No, this time it's six.

MIA BULJAN: Okay. So when he first told you that, you thought it wouldn't work out. You thought, you thought someone wouldn't have the same?

STUDENT: Yeah.

MIA BULJAN: But now you think they have the same. So can you read the problem again and just think about both ways you did it, and what do you think the problem is actually asking you to do.

STUDENT: Um, that to equal kind of like Sam too? Like, to put his...

MIA BULJAN: So where in there do you think it's telling you Sam also?

STUDENT: Like, I think right here. Like, how many hot dogs can they each have to get, like have. So like, four like that.

MIA BULJAN: So you can definitely answer the question this way, but you definitely answered the other question, too. You said that there were eight and it worked, right? So my question is, where in this story does it say not just his three friends, but Sam?

STUDENT: Right there, like hot dogs for Sam and his friends, three friends.

MIA BULJAN: For Sam and his three friends. So I want you guys to think for a second. What would it have said if it wasn't going to include Sam? What would the wording be like?

STUDENT: It would just say for three friends.

MIA BULJAN: What do you think Esbin?

STUDENT: I think it would say um, Sam bought twenty-four hot dogs for his three friends.

MIA BULJAN: For his three friends. Okay. So the fact that it says Sam and his three friends told you to put those together? Okay. Well, it was super helpful. Um, go ahead and go back to your desks, we're going to do...