

Passion For Teaching and Learning
Grade 1: The Brownie Dilemma
Congress

SPEAKER 1: So, I posed the question to you, and you're going to try to help me see if Michael and Charlie and Drew and Nora were able to get those ten brownies. I wanted to know if you could share ten brownies with four kids. And so Gregory, I visited with you and Prem, and you guys had a solution for the ten brownies and four kids. Here. Do you want to bring your paper up and you can show people what you did there with the ten brownies and four kids? Okay, so how about I hold it here, and then can you come to the other side, and then you'll be able to point and explain like you did to me?

SPEAKER 2: I would give these two to this boy, and got these two to give to this boy, and this one cake is, like, split. So I give this part to this boy, and give this part to this girl. And I did, like, the same thing, like two parts to this boy, and two parts to this girl, and I splitted this cake too. And I could give this part to this boy, and this part to this girl.

SPEAKER 1: So how many whole brownies does each kid get?

SPEAKER 2: Like one split one.

SPEAKER 1: One split one, and how many whole ones?

SPEAKER 2: Two. Two.

SPEAKER 1: So, two whole ones and one split one. Are you following what Gregory was sharing? Yeah?

SPEAKER 3: It's called two and a half.

SPEAKER 1: Oh, okay. So you've just introduced a word there. So, Gregory, did you hear the word that Adam just used? So these split pieces, he's calling halves. Two and a half. So, thanks for sharing this with us. So did they get the brownies?

SPEAKER 4: Yes. Yes.

SPEAKER 1: It was possible. It was possible. So, yeah, each kid got two whole brownies and then half of another brownie. When you were solving it, what was really important about the brownies and sharing them? What was important? [INAUDIBLE], what's important about sharing things?

SPEAKER 5: It makes it fair for other people.

SPEAKER 1: Right. Everybody had to get the same amount, right? Okay. I put a couple of challenges out there. Maya, can we go to the challenge I gave you guys first?

SPEAKER 6: Can you share five brownies with four kids?

SPEAKER 1: So I changed the number on them, and I asked them if they thought they could do this. Okay, and what ended up happening when I asked you if you could share five brownies with four kids?

SPEAKER 6: Because they each get one whole, and then you split the last one into four quarters, so that they each get one quarter.

SPEAKER 1: So, can you tell me again, how many brownies would each kid get?

SPEAKER 7: So they all get one quarter and one full.

SPEAKER 1: So one full brownie. And wow, so this last brownie, how many equal pieces did you break this into? Four equal pieces. Have any of you ever split something into quarters to share it before? Yeah? Oh, you said oh, yeah. Why? Were you making a connection? What's something that you've split into quarters to share?

SPEAKER 7: So, when I get-- so once, I went to [INAUDIBLE]'s birthday party, and there, the people gave me all kinds of treats for [INAUDIBLE]. And then my mother wanted it to be fair for all of them, and so I had to do it in quarters, because there's four kids.

SPEAKER 1: Mateo and Adam, I gave you a different challenge. I gave this one to Calcadan and Maya. What did I give you guys? What does this say? Can you share three brownies with four kids? So, what did you guys end up discovering, Adam? Do you want to bring that up? Okay, so less and less brownies. Let's see what's happening now.

SPEAKER 8: So, because one is for that kid, one gets for that kid, one gets for that kid, one gets for that kid. And then one gets for that kid, one gets for that kid, one gets for that kid, one gets for that kid. And they're all equal.

SPEAKER 1: Okay, so, yeah, that's perfect. You used the word equal. And you kept talking about one. But when I look here, if I gave four kids one brownie, I would need four brownies, wouldn't I? So when you're saying one, what are you talking about here? Your picture's sort of showing it, but I'd like you to talk about what I see in your picture.

SPEAKER 8: Because at the starting, I was giving one to that kid, and I'm saying one, because I wasn't on my second piece yet. So I was going, like, one because I was giving one and not two to each kid.

SPEAKER 1: Okay, so hang on. But let's-- yeah, but these brownies here, what did you do to your brownies? So, these are-- do we have all of our eyes here? We're seeing this?

SPEAKER 8: I cut them into two parts, and then I cut that one to two parts, and then I cut that one into quarters.

SPEAKER 1: Ah. See, now I think somebody else might be able to understand what you're talking about here. So, Calcadan, did you want to add to his explanation?

SPEAKER 9: So, two, four, six, eight. And there's four kids. And eight, four is half-- eight is half of four.

SPEAKER 1: And, so eight. Was that an important number, you thought, when you were sharing these brownies? Why eight?

SPEAKER 9: Because there's four kids. And eight is half of four.

SPEAKER 1: So that seemed important to you. So, now, I'm still not sure that everybody's going to understand how you solved this. Is there somebody who's sitting there who could explain how Adam shared three brownies with four kids? So you're understanding his picture here? Because I'm not sure how well he's explained it. You can help with the explanation?

SPEAKER 10: So, if you cut these two brownies in half.

SPEAKER 1: Okay, those two brownies in half, yeah.

SPEAKER 10: And they would each get one half.

SPEAKER 1: Okay. So then what do we do with the last brownie?

SPEAKER 10: And you cut this one into quarters, and then they each get one quarter.

SPEAKER 1: So, each kid got one half a brownie and one quarter of the last brownie. I'm following that. So, I left you guys with one last thinking point, and this is what I want to ask now. Are there some numbers that would be easier to share than other numbers? Hmm. Are there some numbers of brownies that might have been easier to share than other numbers of brownies? Mateo?

SPEAKER 11: If it was two even numbers, it would be easier.

SPEAKER 1: Can you give us an example of what you mean?

SPEAKER 11: Four and four.

SPEAKER 1: So if there were four kids and four brownies.

SPEAKER 12: Yeah, that'd be easy.

SPEAKER 1: Can you think of another number that would be easy? So, six would be easy to share?

SPEAKER 13: Yeah. One person gets three. The other person gets three.

SPEAKER 1: Oh, okay. I see what you're doing. So if it was six brownies and two kids, that would be easy to share. Okay. Adam?

SPEAKER 14: This would be really easy if there was one kid and one brownie.

SPEAKER 1: Yeah, when it matches one to one, right? Okay. All right. So, boys and girls, we're going to leave our math thinking for now.