

MICHELLE KIOUS: One and zero. So I've been noticing some really good thinking and, oops, I'm at zero so that means that hands are free, eyes are on me, mouth is closed, and you are back at your seat. So I got almost all of those things. Almost all except eye contact. Thank you. So I noticed some really, really good thinking, and I heard partners giving reasons why they were matching these cards, but I do want you to get a chance to look at another group and what another group was thinking. So on the white paper that you did yesterday, so you wrote down all of your matches from yesterday so that you could bring them to another table to share, I want you to add today's matches. Even if you are not finished, write down the ones that you did match. So I'm going to give you, um, a couple minutes to quickly do that. So on that white paper, write down the ones that you did match today, and if you have some you haven't matched yet, that's okay. Just write down the ones you did match on that white paper right now. Write them down.

STUDENT: Write next to them?

MICHELLE KIOUS: Write next to them. Yeah. Okay. If you didn't finish, that's okay. Just write it here, that's fine. So help her write them down. Write the letters. So do you know... So 30 seconds to finish writing down those card numbers. Two, one, and zero. So looking for those four things. Thank you. So I know some of you aren't done, but I still want you to get a chance to listen to some other people's thinking. So I am going to have just like yesterday, I'm going to have, um, two people from your color group get up, and they are going to find another pair. And it might not work out today because you did have a pair from yesterday. I would like you to try to share with a different, um, pair that you shared from yesterday, not the same one, if possible. If it doesn't work out, that's okay.

And when you're sharing, this is what I want you to do. I want you to go through, you're bringing your paper with you if you are the ones who are standing up. Go through the cards that you both have matched and see if you agree or disagree. So I'm going to wait one second so I should have everyone focused over here. Thank you. So, um, go through the cards that you've matched. Decide if you agree or disagree, and if you disagree, I don't want you to say, "You're wrong!" No. I want you to give a reason. "So I disagree, um, with his match or with you because..." and give them a reason why. Point things out. Show why you disagree, and I want to hear a mathematical discussion. That's what I'm looking for.

Let's say that you agree on all of them. I'm not going to have you go right back to your desk and glue yet. So if you agree on all of them and I haven't stopped you yet, I want you to have a discussion about how you figured it out. Think about some of the ones that were hardest to decide on, and talk with that other pair about how you figured those things out. So the first step is to compare, and either agree or disagree. And if you've already done that and I haven't asked you to go back yet, then you need to talk about the ones that were really hard for you, and talk about how you figured those out. Or if you have a couple that neither one of you have matched yet, you can have that discussion, too. Questions about what you're going to do besides who you're going to be matched with? So yesterday, um, the threes and fours got up, right? And they matched with the ones and twos. So this time, I'm going to have the

opposite. So if you are a one or a two, please stand up with your white paper and find a pair of threes or fours.

STUDENT: Okay, um, I don't know this one.

STUDENT: C3 is right here. C10. We got C10.

STUDENT: Okay. We got...

STUDENT: Oh.

STUDENT: One-fourth.

STUDENT: I disagree with one-fourth because...because, um, what you got... And then we got C3.

STUDENT: C10.

STUDENT: Right there because for C10. Oh, I know why you think that one because there was, um, you drew it, didn't you?

STUDENT: Yeah.

STUDENT: Yeah. Okay. So that's it. One-half. What did you get for one-half?

STUDENT: We got C8.

STUDENT: We got B, uh, C8.

STUDENT: Yeah, I agree with you.

STUDENT: Okay.

STUDENT: How about two-thirds?

STUDENT: Okay, two-thirds.

STUDENT: We got C...C6.

STUDENT: We agree.

STUDENT: How about for, um, C...C2?

STUDENT: C2?

STUDENT: C2? We got ten.

STUDENT: Yeah, three-tenths.

STUDENT: Yeah, yeah, three-tenths.

STUDENT: Yes.

STUDENT: Okay. Five-sixths?

STUDENT: Five-sixths is C1.

STUDENT: Yeah, C1.

STUDENT: Yes.

STUDENT: Yeah, I agree with you. I agree.

STUDENT: How about five-eighths.

STUDENT: C9.

STUDENT: C9, okay. Um.

STUDENT: How about C, um, C2?

STUDENT: C2, we got three-tenths.

STUDENT: What did you get for C4?

STUDENT: We got ten-twelfths.

STUDENT: C4, we got ten-twelfths.

STUDENT: I think you got to put, um, C5 with six-ninths.

STUDENT: Okay, Sandra, do you agree?

STUDENT: Why me?

STUDENT: I disagree.

MICHELLE KIOUS: Uh, see, uh, so we need to know what your picture was. Can you go over and, and draw what your picture was so that, that, you're drawing because if you had C3 and they had C3, we might not know if you did the same. So can you look at yours and see? Get your pencil so you can draw that.

STUDENT: It's supposed to be half.

TEACHER: Why?

STUDENT: Because four is half of eight.

STUDENT: Because four is half of eight.

TEACHER: Oh.

STUDENT: So the ... fours are shaded, and altogether are eight.

TEACHER: So what did Ms. Kious say that you could do if you found out something you wanted to self-correct?

STUDENT: Um, there's extra paper up there so we can, um, correct, um, our, our...

TEACHER: Okay, so you go to your next discussion line.

STUDENT: Um, C7.

STUDENT: C7.

STUDENT: We got six-ninths.

STUDENT: Okay.

TEACHER: And what did you get? You ask.

STUDENT: It's upside down, but still six-ninths.

STUDENT: Which one? Six-ninths.

STUDENT: It's upside down.

STUDENT: Um, for C, for C7.

STUDENT: So look at this, uh, the...

STUDENT: One-fourth, you got one-fourth. We used C3 to, to draw.

STUDENT: We forgot to draw it.

STUDENT: We got C3, too, to draw it.

STUDENT: Yeah, that's how we did it.

STUDENT: How come up you put...

STUDENT: Because I got mix, mixed up.

STUDENT: How come you put C2?

STUDENT: I got mixed up.

STUDENT: Oh. That's why I was not sure about it.

STUDENT: You put C3 for that one.

STUDENT: Okay, so we agree with this one, right?

STUDENT: Yeah.

STUDENT: I just need to fix it.

STUDENT: Now one-fourth. Oh, that was the one we were doing.

STUDENT: It doesn't look like one-fourth.

TEACHER: Yeah. Why?

STUDENT: C7 is this one.

STUDENT: This is not C ... this is not one-fourth if there's not equal parts. There's not four equal parts.

STUDENT: Yeah. Um, yes, there is because if you, um, you can draw them to make it. See. Can I borrow that? Then, you can draw.

STUDENT: Go up.

STUDENT: And I know it before.

STUDENT: Oh.

TEACHER: So what did you just do? Explain it to me. Convince me.

STUDENT: She drew four more parts, or three more parts.

STUDENT: To make one-fourth.

TEACHER: And how do you know now this is one-fourth?

STUDENT: Because there are four equal pieces. Well, there are four pieces. I don't know if they're equal.

TEACHER: Close enough.

STUDENT: Yeah.

TEACHER: Okay, so you just convinced yourself on that one, that you weren't sure. So what is your other discussion, when, that you both, that you didn't agree on?

STUDENT: C10.

STUDENT: Okay.

STUDENT: Oh, we drew C10. So then when we...

STUDENT: So that's why. Because we probably drew it on a different one.

STUDENT: They probably drew C...could you go check? Um, I mean...

STUDENT: And then I think after that one.

STUDENT: No. There's...oh yeah, there is, the C10.

STUDENT: For C10, we got one and one-fourth.

STUDENT: One-fourth?

STUDENT: One and one-fourth. Wait.

STUDENT: No, but I mean the card number, the yellow card number. Can you go check again please?

STUDENT: Wait. You guys didn't get one and one-fourth?

STUDENT: No.

STUDENT: You didn't get one and one-fourth.

STUDENT: Oh, we got for this one is one and one-fourth.

TEACHER: Why?

STUDENT: Because this, these are whole numbers so this is one, number one.

STUDENT: This means that there's, this is one whole, so then one, and then that would be one out of four.

STUDENT: One and one-fourth.

TEACHER: Do you agree?

STUDENT: Yeah.

TEACHER: Because this is yours. Do you agree?

STUDENT: Mm-hmm.

TEACHER: Explain it to me.

STUDENT: This is, um...

TEACHER: You, too.

STUDENT: This is a whole, and there's four pieces, and here there's one out of the four, so there's one and one-fourth. Because there's one out of four.

TEACHER: And what would this be if you said it's fourths, what would this represent?

STUDENT: One whole. One whole.

TEACHER: Which would be what?

STUDENT: Four.

TEACHER: Say that again.

STUDENT: Four-fourths.

TEACHER: So I'm hearing you say four-fourths, plus...

STUDENT: One-fourth.

TEACHER: Hmm. You want to switch, change that one? Okay, you have permission to.