Teacher: [crosstalk 00:00:03] Did you want to grab your own personal marker. Whiteboards are right here. Sorry.

Students: Mine.

Teacher: Wait. Stop real quick. Can [inaudible 00:00:21] cut in front of you sweetheart? Thank you. Go ahead and go. "student" back of the line now, you missed it. Scoot over and make sure we have 6. A little bit, scoot over. Can you just wait? Can you wait until I'm done and then when we do our group lesson? Is that okay? I promise it won't be that long? Is that okay? I don't want you to miss what we're doing though. That's 6 sweetheart. [crosstalk 00:00:53] No more erasers?

Students: Pardon me. Coming through.

Teacher: There's one on the floor, can you grab that one on the floor?

Students: "student".

Teacher: That's okay, bud, thank you. Thank you for sitting quietly on the rug as we wait. Yes sweetheart?

Students: [inaudible 00:01:20]

Teacher: Okay, I will. Thank you. [crosstalk 00:01:27]. Thank you for being still who can show me how to sit on my rug? Just show me. Remember, eraser, board on the floor. Eraser is on the floor, and then marker on top. Just put it down, okay. Who does not have an eraser, raise their hand. Okay. I will just give you guys paper towels today. It's okay, I'll just give them paper towels sweetheart. Actually "student" can you grab 4 [00:02:00] napkins please? Thank you for sitting quietly as we wait. What's up "student"?

Students: [inaudible 00:02:08]

Teacher: Okay, thank you. When we turn and talk "student", I want you to join those two girls, okay. Never alone. I love how quietly you guys are. Thank you. All right?

Students: Mm-hmm (affirmative).

Teacher: Remember how my mom and sister and brother were here a couple weeks ago?

Students: That was your mom and your sister and your brother?

Teacher: Yeah. Remember I showed you a picture? No, not my dad.

[inaudible 00:02:49]. Thank you, ["student" 00:02:52] for being a role model. Come on "student". Just leave it next to you. Come on, "student". Thank you for waiting quietly as we waited for that. I appreciated that.

My brother, my sister, me, and my mom went to [inaudible 00:03:09]. Before we went to [inaudible 00:03:12], we decided we each need a towel, we each need a pair of flip flops. How many flip flops, slippers ... Who knew what flip flops were, anybody know what flip flops are?

Students: They're just like slippers.

Teacher: They're just like slippers. [crosstalk 00:03:32] In California, we call these flip flops because when you walk [crosstalk 00:03:40] flip flop, flip flop, and that's why we call them flip flops. [crosstalk 00:03:47] I call them slippers now because you guys told me to call them slippers. Reset please. Reset We go to the beach, we need flip flops, slippers. [00:04:00] How many slippers are we bringing? Turn and talk to your partner and see if [crosstalk 00:04:05] you can figure it out. Wait, class, class, class?

Students: Yes, yes, yes?

Teacher: Sorry I'm still waiting on a couple voices. Sorry reset. I want you to turn and talk to your partner. How many flip flops are we bringing? Not pairs, but how many slippers, each, do we need? What operation are we using?

Students: Operation?

Teacher: Multiplication? Division, addition, or subtraction? Turn to your partner and describe what are you doing and explain why.

Students: [crosstalk 00:04:38]

Teacher: What are you saying?

Students: [crosstalk 00:04:45]

Teacher: What do you think? [crosstalk 00:04:47] Minus? Are we getting rid of something? [crosstalk 00:04:53] Adding? [crosstalk 00:04:54] Through a different operation [crosstalk 00:04:56] Which one would be a better choice? Why is it faster? [crosstalk 00:05:05] Is it groups of 4s with flip flops? It's groups of 2s. Yeah, it is groups of 2. Reset. Reset. Who's my name picker?

Students: Dave.

Students: Lonnie.

Teacher:	[inaudible 00:05:21] go ahead. Quickly, quickly, quickly. As I wait, who can tell me which operation you would be using? Explain the evidence of why we're using that operation? Brandon go ahead.
Students:	Times?
Teacher:	Times. What's another word for times?
Students:	Divisions? No.
Students:	Division.
Teacher:	What's another word for times?
Students:	(in unison) Division.
Teacher:	Multiplication. Remember I want us to get in the habit of using multiplication. When you think of multiplication, what do I want you to think of? [00:06:00]
Students:	Groups.
Students:	Groups of?
Teacher:	Yep, groups of. Remember when we do things, still please, when we do math, we don't have to draw fancy pictures. How many people were there?
Students:	(in unison) 4. 5.
Teacher:	I kept drawing, so let's see. Let me label. Mom, me, my sister, and my brother. How many is that?

4.

What were we looking for? What were we trying to figure out? What was the problem, what were we trying to figure out? "student". |
Students:	2 times 4 equals 8.
Teacher:	Okay, you said 2 times 4 equals 8. Can you tell me what these numbers represent? What does a 2 represent, what does the 4 represent, what does the 8 represent? Can somebody tell me what that represents? [inaudible 00:07:00]
Students:	The 2 represents the slippers, the four represents the people, and the 8 represents how much slippers.
Teacher:	Slippers, people. Do you want me to call it slippers or flip flops?

Students: Flip flops!

Students: Flip flops! But it's hard to say.

Teacher: Would you agree that we used the right operation?

Students: Yes.

Teacher: Is there another operation that you could have used? Is there another operation that you could have used? Turn and talk to your partner and say is there another operation that you could have used?

Students: [crosstalk 00:07:28]

Teacher: Reset. Show me using your hand what operation you would have used. Instead of multiplication. I see people saying division. I see some people saying addition. Can somebody explain their answer? Reset. "student", this is your warning bud, how should we sit? [00:08:00] "student", this is your warning, bud. [inaudible 00:08:06]

Students: I said division because ...

Teacher: What numbers would you have used?

Students: I would have used 2. 4. It would equal the same thing.

Teacher: Why are you disagreeing sweetheart?

Students: [inaudible 00:08:32]

Teacher: A little louder. It's what?

Students: It's division.

Teacher: What does division mean? If multiplication means groups of, what does division mean?

Students: Split.

Teacher: Split. We're splitting into groups. Are we splitting anything into groups right now?

Students: (in unison) No.

Teacher: Would division be a good operation?

Students: No.

Teacher:	No. [crosstalk 00:08:56] Also I wanted to find this out, remember, if you're taking 2 and splitting into 4, you have to have the bigger number first, right?
Students:	Yeah.
Teacher:	It can't be division, so let's take this out. What's the other operation we were using? Does anyone know? "student", I saw a light bulb go off in your head, what do you think it is?
Students:	Plus?
Teacher:	Plus.
Students:	Yes, I said plus.
Teacher:	What would we be plussing though? Sorry, we don't want to use plus, what word is that? What's another word for plus?
Students:	Addition.
Teacher:	Addition. What would my equation look like if we are using addition? What?
Students:	4 plus 2? No equals 6.
Teacher:	Okay.
Students:	No use another number.
Teacher:	Please don't yell out. Who is agreeing or disagreeing with this and who can explain? Let's give someone else a try. Go ahead, sweetheart, which should it be?
Students:	6, 2 plus 4? [00:10:00]
Teacher:	Is it 2 plus 4? That's the same thing. That's the ...
Students:	It's just the commutative property.
Teacher:	It is the commutative property, but is this the correct operation we need?
Students:	No.
Teacher:	What operation would we need? What are we adding? Go back to the problem, what are we adding?
Students:	Slippers.

Teacher: Slippers.

Students: Flip flops.

Students: You only keep ...

Teacher: How many does my mom need?

Students: 2.

Teacher: What am I adding that to?

Students: 6?

Teacher: I need 6 flip flops?

Students: 2. You're going to need more 2. 6.

Teacher: 6? That doesn't show 6. [crosstalk 00:10:39] Would it make sense then to go 2 plus 6?

Students: No.

Students: Yes.

Teacher: Is that showing this model?

Students: No.

Teacher: We want to model this. That the 4 people and each flip flop. Would the 2 plus 6 be a good [crosstalk 00:10:56] model for that? What would it be? "student", what do you think sweetheart? Would it be 6? What do you think it is sweetheart?

Students: 2.

Teacher: Why 2?

Students: There's going to be another one for another person.

Teacher: Yeah, I need 2. Then my sister needs ...

Students: 2. [crosstalk 00:11:21]

Students: Oh I forgot [crosstalk 00:11:24].

Teacher: 2, 4, 6, 8. Is that the correct model for this?

Students:	Yes.
Teacher:	Yes. Turn and talk to your partner, why is this the correct model and this is not the correct model for this? [crosstalk 00:11:41] [00:12:00] Show her that you're listening to her. Smile. Look at her. Reset. Reset. Why is this a good model for this problem? Yes.
Students:	It's a good problem for that problem because that would equal a different number and that wouldn't equal the same number. 8.
Teacher:	Remember in math, your numbers represent something. I have a lot of hands moving. Let's still. Let's calm down. Eyes on me. I'm waiting on 3 people. ["student" 00:12:40], be responsible. "student", I'm waiting on you still bud. Thank you. In math, the numbers mean something. If we want to represent this problem, we need to make sure the numbers make sense. Would it make sense that I'm wearing 4 flip flops?
Students:	No.
Teacher:	That's why this model wouldn't be correct. This model's what we're using. Okay. I wanted to show you [inaudible 00:13:02] Nice catch. Sorry. I really appreciate how you guys didn't even scream. You guys were very calm. "student" you were like a ninja. Can you hand me an eraser please. I really wanted to illustrate to you guys why math is important. Especially multiplication. Today our goal is I want to use multiplication strategies and models to solve ... "Teacher" cannot talk right now. I'm just so impressed from her catching the microphone. I can use multiplication strategies and models to solve word problems. Also, I'm going to take it a little bit further, and we're going to explain how multiplication and division are related. I was talking to you guys the other day and I know multiplication and division is still, it's not clear. [00:14:00] It's wishy-washy. We're going to discuss about that more today.

I have this awesome book. It's called "Each Orange Had 8 Slices." This is what you guys are going to do. Your goal is today to take the different pieces that I taught you already. I've taught you how to make an array. |
Students:	What is that?
Teacher:	An array. I've taught you how to make arrays. I've taught you how multiplication is the same as repeated addition. I've talked to you about groups and I've talked to you about fact families. What we're going to do today is we're going to take real world problems and we're going to connect all those things we learned and show a model that.
Students:	A model?
Teacher:	"student" I'm waiting on you. Yeah. A model just means you're using ways to show it. For this problem we used this as repeated addition, multiplication, you can say is a repeated addition. We also have the equation. We could have also done an array. 4 groups of 2.

Students: I forgot about that.

Teacher: 4 groups of 2. We'll practice a little bit, but I want to show you what problems are on here.

Students: Hard problems?

Teacher: Are things ever hard?

Students: No. [crosstalk 00:15:27]

Teacher: There's a lot of people yelling right now, so I'm going to wait. Take a deep breath. Materials are down, we're still calm, okay.

I ate two juicy oranges. Each orange had 8 slices. Each slice had 2 small seeds. How many juicy oranges were there? Who knows the answer? How many [00:16:00] juicy oranges were there?

Students: 8.

Teacher: Would you agree or disagree with that? Who can explain the answer?

Students: I disagree because 8 plus 8 equal 16.

Teacher: Okay, but how many oranges are there? Use the evidence in the source. Pick out the important numbers?

Students: 2.

Teacher: Someone raising their hand. Okay, "student"?

Students: 2.

Teacher: Yep, and where does it say that?

Students: It says, "On my way to lunch, I ate two juicy oranges."

Teacher: Yep. There's going to be 3 factors in here. There are three numbers in here. We have to pull out which one we're going to use for multiplication. How many slices were there? Using your boards show me the equation to figure out how many slices are there. [crosstalk 00:16:57] equation is the number sentence. Remember the equation is the number words. Remember this will be the equation. You'll have a multiplication sign. I want you to figure out [crosstalk 00:17:13] I'm asking for the multiplication number sentences.

On my way to lunch, I ate two juicy oranges. Each orange had 8 slices. Is that one out buddy? Next time just throw it in the trash. Go ahead and discuss with your neighbor why you think that's the answer. [crosstalk 00:17:42] What are we multiplying? We're [00:18:00] asking how many slices are there. How many oranges are there first?

Students: 8. There's 2.

Teacher: There's 2 oranges. Write down 2 because we know there's 2 oranges. There's two groups, but how many slices are there because it's asking slices.

Students: 8.

Teacher: 8, right. It's going to be 2 oranges, 2 groups of 8. [crosstalk 00:18:26] What's the answer? "student". "student", [inaudible 00:18:37] this is your warning. Cris-cross please. Yellow. When I say red, your markers should be down already. Your boards should not be up yet. Your boards should not be up. Yellow. Green go. I'm seeing there were two oranges, there were 8 slices each. I appreciate how you labeled the units. Remember we were counting slices. We're counting slices, good job. Go ahead and erase it. That was your equation. Show me the array you would have used for it. [crosstalk 00:19:13] Remember the array is using the dots. [crosstalk 00:19:21] The array. [crosstalk 00:19:25] Let me hold it for you guys.

Students: Can we share?

Teacher: You may with discuss with your partner after you finish and see if you have the right idea. Discuss with [inaudible 00:19:40] if he needs some help. [crosstalk 00:19:45]

[00:20:00] "student". "student", this is your warning. "student", ["student" 00:20:13] it's okay if you didn't finish. You need to be on task though. I'm still waiting on "student". Next time "student", make smarter choices and don't make big circles and just do dots like I've said before. That's why you didn't finish. Yellow. Green go. Can I see yours? [crosstalk 00:20:35] Can I borrow yours? We have 2 different models here. I appreciate for both of you being brave. Which model is the correct model? Turn and talk to your neighbor what you [crosstalk 00:20:54]

Reset. Boards are down.

Students: Erase?

Teacher: Don't erase yet. Close your eyes. Sorry, open your eyes first. Let me tell you. This is A, this is B. A, B. In your head, pick which one you're going to pick. A or B. Close your eyes. If you think it's A, put your thumbs up. Hands down. If you think it's B, close your eyes still. All right. Thank you. Eyes open. Someone from group A, tell me why this is the correct answer? Go ahead. Sorry. Everyone's looking at you, [00:22:00] so we're going to take a minute. "student", board down.

Students:	I think it is A because A times 2 lines and 8 in each. That one it has 2 in each but is actually 8 slices in one bowl, plate.
Teacher:	Remember, just like math, multiplication is a commutative property. They're both going to be the same answers. Which model is correct? What were we trying to show? The oranges and 2 groups, or 2 groups of 8?
Students:	8 groups of 2.
Teacher:	Are we showing 8 groups of 2 or are we showing 2 groups of 8?
Students:	2 groups of 8 (in unison).
Teacher:	Knowing that, which model should you have used?
Students:	B.
Students:	A.
Students:	B!
Students:	A.
Teacher:	Can someone explain?
Students:	Oh, yeah, A.
Teacher:	[inaudible 00:22:51]
Students:	It's B, because you're supposed to have the two dots across and [crosstalk 00:23:00]
Teacher:	We don't yell out no, remember. Let's look at this model. This is telling me, 1, 2, 3, 4, 5, 6, 7, this is saying 8 groups of 2. Is that what we're trying to show though?
Students:	No.
Teacher:	What are we trying to show?
Students:	That there are 2 groups of 8.
Teacher:	That we're showing 2 groups of 8. This would have been the proper array. [crosstalk 00:23:27] Go ahead and erase your boards. Thank you for being brave. After we show the array, the next thing I want you to show me is ...
Students:	Fact family?

Teacher: The groups. Show me in groups. [crosstalk 00:23:43] We have 2 groups of 8. I want you to show me the model of 2 groups of 8. Good job[crosstalk 00:23:55] I want you to show me 2 groups of 8 using groups. [00:24:00] [crosstalk 00:24:07] Remember, I want you guys to see how all of the different things we've been learning connect, how an array is almost the same thing as a group. ["student" 00:24:31] instead of writing groups of, use the multiplication sign. [inaudible 00:24:37] multiplication sign. [crosstalk 00:24:41] Not yet.

             Red. Still. ["student" 00:24:50], we're waiting on you. It's okay if you didn't finish. Sit properly please. Red. Yellow, Green, Go. Turn and talk to your partner and check their work and either agree with it or disagree with it. [crosstalk 00:25:11] Why do you disagree with her? "student" why do you disagree with yours? [crosstalk 00:25:19] Are you adding 2s though? Are you using the right operation? Operation. [crosstalk 00:25:23]The groups, we have 2 groups. Go ahead and erase and reset, please. Show me you're ready by putting your board down and your markers and erasers where they need to be. "student", you need to make better choices, you're taking a long time. Ask to borrow her eraser sweetheart. "student". Do you think that was the [00:26:00] smartest thing to do? Please don't do that. How many groups do we have first?

Students: 2.

Teacher: 2, so drew my 2 groups. How many do I draw in each group?

Students: 8.

Teacher: 8. 1, 2, 3, 4, 5, 6, 7, 8. 1, 2, 3, 4, 5, 6, 7, 8. This is my array. This is my groups of. [crosstalk 00:26:28]. Next using this equation ... [crosstalk 00:26:36] Wait did I do this wrong? That was just me showing you an array, right? Okay, what I want you guys to do next, is I want you guys to show me the fact family that goes with 2 groups of 8 equals 16. Connect it. Show me the fact family. It is the triangle. [crosstalk 00:27:00] If you need the triangle to help you with your tool, go ahead. I need to see your equation first. I only want your triangle to be a little bit of your board, because I'm going to be looking at your equations. [crosstalk 00:27:14]

Students: Equals 16 "Teacher"?

Teacher: I'm not sure, you'll have to figure that out, bud.

Students: Wait, what?

Students: Fact family.

Teacher: You have to write all of the facts that go with it? What are the facts that go with it? We're using multiplication and division now. We're using multiplication and division. We're counting by groups. "student" start with your triangle. What's your biggest number, sweetheart? [00:28:00] Wait. Is that the biggest number in the equation? Look at the equation [inaudible 00:28:07]. Which one's the biggest number? The biggest

number goes on top. Okay, Kyle we're using multiplication and division now not addition and subtraction. We're using multiplication and division. You should have 4 facts.

Students: 4?

Teacher: Mm-hmm (affirmative). [crosstalk 00:28:31]

Students: Plus and minus part of it.

Teacher: You may talk to your partner to see if they can help you.

Students: Do you need help?

Teacher: Let him have a chance.

Students: Wait, all these are facts?

Teacher: Multiplication and division right now. Draw your triangle.

Students: And division.

Students: Can we check with them after?

Teacher: "student", I think you're getting stuck. Draw your triangle first. Can you hand me a board, [inaudible 00:29:01] please. Mahalo. [crosstalk 00:29:11] That's great language, thank you. [inaudible 00:29:20] Yeah. You're doing a good job. She's talking about your first one though. Is your bigger one first?

Reset. Reset. Board is down, do not erase. Leave it still. We'll talk about it. I know this is the part where we were getting stuck at. It's okay. It's okay if it's difficult for you right now. We are going to discuss it. I'm waiting on 2 people. [crosstalk 00:29:47] Okay, bud, put it down. Thank you. "student" we're waiting on you. Patricia we're waiting on you. Boards are down. The reason why I want you boards down is because it makes a lot of noise when you guys are moving back and forth. [inaudible 00:29:59] like that. See, [00:30:00] that's a lot of noise, and if 20 people are doing it, it's too much. Go grab it. When we do a fact family, what tool do I want you to use? What's the first thing you should draw on your board?

Students: The triangle.

Teacher: The triangle. We know the number sentence is what?

Students: 2 times 8.

Teacher: Okay. Yep, because there are 2 oranges with 8 slices. Where do these go in my triangle? I'm waiting on "student". "student"?

Students: The 16 goes on the top.

Teacher: Yep. Remember when you split 16, you're splitting it, you're taking the big number and you're splitting it into groups. I can split it by 2 or I can split it by 8. Then if you're multiplying, you can take these 2 factors and get the bigger number. If we know this number, what's the commutative property of this one? "student"?

Students: 8 times 2 equals 16.

Teacher: This is where it gets tricky and I know this is where you guys are not understanding. This is why I want you to look at this model. This is why I drew this model. How many are in the group?

Students: 2.

Teacher: How many are in the group?

Students: 16.

Teacher: 16 are in my group. I'm splitting it by what? It's the opposite. What am I splitting it? How many groups am I splitting? I have 16 in all, how many am I splitting it up by? [inaudible 00:31:41] you need to try instead of just saying it's hard, right? Yeah.

Students: 2.

Teacher: 2. Right? I'm splitting my 16 and I'm putting it in groups of 2. Then what's my answer?

Students: 8.

Teacher: 8. When we split in division, it's always going to be the big number. 16 divided by what?

Students: 8.

Teacher: It's not this model, it'd be the other model.

Students: 8.

Teacher: Yes? [00:32:00] Equals ...

Students: [inaudible 00:32:05]

Teacher: That's your fact family. [crosstalk 00:32:04] I want you guys to know ... I'll wait. Still. Still. Don't worry if you got it wrong, that's why we're practicing now. Waiting on ["student" and "student" 00:32:15] [inaudible 00:32:16] Do you need to go back to your seat? [inaudible 00:32:18] part of the group please. What I wanted you guys to see though, is even though we're practicing multiplication, the opposite of multiplication is division. I

wanted you to see that you're making groups here, but if you're splitting up the groups, you would take 16 and split it into 2. That's why it would equal 8. Now we know, turn and talk to your partner, why is multiplication related to division? How do they go together? [crosstalk 00:32:43] Reset. [inaudible 00:33:01] Head up looking at me please. Thank you sweetheart. Yeah.

Students: They are related because it's something to do with the [inaudible 00:33:10]

Teacher: Mm-hmm (affirmative). In multiplication, are you creating groups, or are you splitting groups up?

Students: Splitting.

Teacher: You're creating groups. You're making groups of in multiplication. In division, what you doing?

Students: Splitting them.

Teacher: You're splitting it up. It's just the opposite. That's why in your fact families, I wanted you guys to see that. Last one. I know we've been sitting a while and I appreciate it. Let's get this last one and show me you're responsible. I want you to show me ... We already did it actually, so we don't have to do it. This is the repeated addition, right? We have the array, the groups of, the repeated addition, and then you did the fact family. Today you guys are going to create your own models. [crosstalk 00:33:55] Who was that? [inaudible 00:33:57]

              "student".

              "student", please pay me a dollar. Do you think that was the [00:34:00] best attitude to have? Not right now. Okay, reset. [inaudible 00:34:06] thank you sweetheart. What your task is today, and I will ...

Students: Help us?

Teacher: If you are on blue or on green, you may choose your partner. If you are on yellow, you are going to be working with me in this group. I will be helping you guys out. This is your task. Here it is. I have several word problems for you to do. I'm waiting on 3 boys, so I'll wait. I have several word problems for you to do. I want you guys to show me the multiplication, ["student" 00:34:53] you are going to be at your desk and you'll pick last now. Do I have everyone's eyes? You are going to show me the models. You are going to take the multiplication, in the real world problems and you are going to model it for me and show me the models. For now, first row please put away your materials.

Students: Erase?

Teacher: Just put it right over there, okay? Yeah, erase, sorry we didn't use it. Can you guys go back to your original seat for now until we pass out the materials?

Students: Even this eraser?

Teacher: Yeah. Let's just put those in so we know we have enough. [crosstalk 00:35:32] Thank you second row for waiting. Yes, sweetheart? Is that mine? Just put it right here. Thank you. Yeah. Thank you sweetie. Actually, just put it on the big desk. [crosstalk 00:35:50] Yeah. Put it away sweetheart. Thank you. Uh-oh, was that mine? Just put it on my desk. [00:36:00] [inaudible 00:36:00] find a different seat bud. [crosstalk 00:36:04] [inaudible 00:36:06] go ahead and pass this out. [crosstalk 00:36:11]

             No, I did say put the napkins away bud. Thank you. "student" can you put those back? "student", can you put that back please? "student", help "student". You may still pick your partners. That's okay, then throw it away. No, you're still part of the group. Please put your name and date on the paper as you get it. [crosstalk 00:36:47] I appreciate those at their desk who are waiting patiently. "student", fix your desk bud. [crosstalk 00:37:10] Thanks bud, just put it up top. Mahalo.

             Standing up quietly, if you're blue and green, go ahead and find a partner to work with. "student", remember. I said you have to wait. You were talking on the rug trying to make partners. Yeah, go ahead bud. Hey gentle over there. Gentle over there. Gentle over there. [crosstalk 00:37:47] "student" go ahead, you may start choosing your partner now. [crosstalk 00:37:53] Yellows. Go ahead and find your partner now actually. Yellows, you may find a partner now. If you do not have a [00:38:00] partner, keep your hand raised and I will help you find a partner. When you have your partner, come up to me and then I will let you pick out which problem you guys are doing. You may sit anywhere in the group. [crosstalk 00:38:11] Yeah, which one do you guys want to do. Form a line please, form a line. Okay, with your partner. Okay, what do you guys want to do, flowers, eggs, clowns, gum, or house? Quickly pick one. [crosstalk 00:38:18] Class, class, class?

Students: Yes, yes, yes?

Teacher: Your choices are flowers, houses, eggs and trees. I'm still talking bud. Think about it before you get here. Okay. "student", please pay me a dollar. You're going to think about flowers, houses, trees, clowns, or gumballs. There's only 3 of each, so if they're not there, think of the 2nd one you want to do. Okay, what do you want to do? Gumball? All right, find a spot. What do you think? [crosstalk 00:38:52] I'm surprised you didn't pick flowers. Go ahead. Just one paper. You and your partner share. You and your partner share. "student", right here bud, do you need one? You got one?

Students: I'm waiting for him.

Teacher: All right. Who does not have a partner, raise their hand? [crosstalk 00:39:14] You guys can work over there, and I'll help you guys. [crosstalk 00:39:21] you may join a group of 3. [crosstalk 00:39:22] What do you guys want? Yes. What did I say about things getting harmed? It's a picture. Just the picture.

Students: Do they all look the same?

Teacher:	They're not all the same. It's what you want to do. [crosstalk 00:39:39] Just one, you're going to share with your partner, okay. What do you want, this one? Who's your partner? "student"? Okay, you're going to join this three? Awesome, thank you. Okay. [crosstalk 00:39:51] Who's your partner sweetheart? "student", can you work with "student"? Come on "student". [00:40:00] "student", and "student", you guys have to pick another one. Yeah. You guys take both. Take both. Take both. Take both. Hold on buddy, I'm working with someone. You're yelling out, hold on bud. [crosstalk 00:40:14] Quickly, quickly, quickly. Flowers? [crosstalk 00:40:23] okay. Just one. Which one are you guys doing?
Students:	You pick then.
Teacher:	Okay. Grab it, grab it. You need both pages. "student", sit properly, or I'll ask you to go back to your desk, okay bud? Thank you. [crosstalk 00:40:46] Which one are you guys doing? You guys want to do this one. You want to do the house ones. Okay, come on. Let's do it. Class, class, class?
Students:	Yes, yes, yes?
Teacher:	You need to figure out which numbers you are using in your multiplication. Which one are you modeling? I forgot to explain, the middle part is where you put your equation. This one would have been 2 times 8 equals 16. That's where the middle goes. That's what happens in the middle. All right, let's read it. [crosstalk 00:41:24] No, no, no, you guys have to share. [crosstalk 00:41:29] Ok, there's 3 numbers, so you got to figure out, what is that question asking? There are 2 questions on the back, pick which question you're going to answer. Stop.

If you can hear me, clap once. If you can hear me clap twice. If you can hear me clap, three times. As you know, there are three numbers, right. Just like in mine, there was 3 numbers. We only focused on one part. We did the 2 [00:42:00] oranges with 8 slices. You're going to pick, remember 3 questions on yours. Pick one question that you're going to answer and show it using multiplication. You'll have to read the page, both pages, if you have 2 pages to figure out what the questions are. "student", if that's not yours, you shouldn't be touching it bud. Get to work. You guys have about 7 minutes. [crosstalk 00:42:24] Quickly, quickly, we have 7 minutes. [crosstalk 00:42:32]

What equation are you guys using? What question are you answering? |
Students:	How many [inaudible 00:42:43] are there.
Teacher:	That's not answering that. That's not answering how many colorful clowns there are. There's 2 colorful clowns. We already know that. That's not a multiplication, right? What does the 5 represent?
Students:	The bright wings.
Teacher:	What question are you answering?

Students: How many bright wings are there?

Teacher: Yeah.

Students: [crosstalk 00:43:09] yellow houses. Each yellow houses had 3 red flowers. Each flower has 5 blue flowers. How many yellow houses were there?

Teacher: How many yellow houses are they? They tell you.

Students: 3.

Teacher: There's 3. That's not a multiplication problem. What's the next one?

Students: There were 3 flowers. How many red flowers were there?

Teacher: Okay, figure out that one. How many red flower pots are there. How many houses are there? What question are you guys answering? Which one, there are 3 questions. Which one are you answering?

Students: Oh.

Teacher: You need to figure out. Are you saying how many bags, how many small boxes or how many gumballs. Figure it out.

Students: How [00:44:00] many eggs.

Teacher: What are you guys answering? [crosstalk 00:44:01] What question are you answering, you have 3 questions here.

Students: Eggs.

Teacher: How many eggs?

Students: We can pick any question?

Teacher: There are 2 questions with multiplication. They tell you how many trees there are. There are 4 trees. I wouldn't pick that one because that's not a multiplication one. Are you doing the nests, or are you doing the eggs?

Students: Eggs. [crosstalk 00:44:21]

Teacher: Okay, erase it and [crosstalk 00:44:23]

Students: I did all of it. [crosstalk 00:44:28] I bought 3 bags of gumballs. [crosstalk 00:44:37] Do you want to do this one?

Students:	That's what I did.
Teacher:	What question are you guys answering?
Students:	How many gumballs were there in all? [crosstalk 00:44:50]
Teacher:	Yeah. Good job. Start your model. Good job. Let me see. It says [crosstalk 00:44:59]
Students:	5, 10, 15, 20 [crosstalk 00:45:00]
Teacher:	Use a question. What question are you guys answering? How many red balloons are there? Each clown is holding one bunch of balloons in each hand. Yep, so how many hands do each clown has? 1, 2, 3, 4. Right? You have 4. It should be 4 because there's 4 hands. 1, 2, 3, 4. Your equation is backwards, right?
Students:	4s are 5.
Teacher:	Mm-hmm (affirmative). Did we figure out the equation?
Students:	Yeah.
Teacher:	What was the equation?
Students:	How many red flowers [crosstalk 00:45:36]
Teacher:	How many houses are there first?
Students:	3.
Teacher:	Start that in your number equation, because that's what we're starting with. Start your number equation right here sweethearts. Hold on bud, I'll be right there, okay. 3, and then what are we counting groups of?
Students:	5.
Teacher:	Yeah.
Students:	5.
Teacher:	Yeah. Okay, show your models now. Show your models. [00:46:00] This doesn't match this.
Students:	Yeah, I told her but she [crosstalk 00:46:06]
Teacher:	It's okay. Which question are we answering?

Students: [crosstalk 00:46:10]

Teacher: There are 3 numbers there. Which question are you answering?

Students: How many red flowers were there. How many trees [crosstalk 00:46:21]

Teacher: What do these numbers represent? What does the 6 equal? You got to figure out what these numbers mean. Which question did you answer here? Figure that out, okay? Excuse me. What are you guys answering? [inaudible 00:46:44] the equation goes here.

Students: What's the equation?

Teacher: The equation is like 2 times 8 equals 16. Okay. What question are you guys answering? How many bags, how many small boxes, or how many gumballs?

Students: 3.

Teacher: Okay, we already know how many bags of gums are there. How many bags of gums are there? 3. Then where are you getting the 3 times 6 from? Does that model show the 3 bags? Which question do you want to answer?

Students: [inaudible 00:47:21]

Teacher: There's how many small boxes are there, or how many gumballs are there. Which one are you answering? How many boxes, or how many gumballs? [crosstalk 00:47:35] How many boxes are there? Okay, but how many bags are there?

Students: 3.

Teacher: What should your equation be? [crosstalk 00:47:48] We have 3 bags. I'm helping somebody. I'm helping somebody. I know, I'll be there after this, okay? We have 3 bags. [00:48:00] 3 boxes in each bag, what's your equation? What are we counting by?

Students: 4?

Teacher: Mm-hmm (affirmative). You're saying there's 3 bags, and there's 3 bags. See how we're saying there's 3 bags? 1, 2, 3. There's 3 groups in each bag. Right? You need to change your number sentence.

Students: 2, 4, 6, 8, 10.

Teacher: Okay, what's up, bud?

Students: Do we have to write two?

Teacher: What are you guys answering, what question are you guys answering? Class, class, class?

Students: Yes, yes, yes?

Teacher: Can you write the question that you're answering underneath? You know how there's 3 questions?

Students: Yeah.

Teacher: Can you write which question you're answering so I can match it?

Students: Where?

Teacher: Just in the box. Label it, are you doing clowns? Trees? Flowers? Okay, what's your question, bud?

Students: Eggs.

Students: Do we have to write two?

Teacher: What are you guys answering?

Students: Clowns.

Teacher: How many clowns there are? What question are you picking here?

Students: How many clowns [crosstalk 00:49:02]

Teacher: Okay. Then where are you guys getting the 5 from? If you're just asking how many clowns there are, what is that 5? [crosstalk 00:49:10]

Students: 2 times 5.

Teacher: Why are you multiplying it by 5 if the question is how many clowns are there, how many clowns are there?

Students: 2.

Teacher: Then what does this represent? Where is the 5 coming from?

Students: I thought we were supposed to do 2 times 5.

Teacher: Why are you doing 2 times 5? Remember these numbers need to mean something.

Students: That equals 20.

Teacher: It does equal 20.

Students: The question would be [crosstalk 00:49:35]

Teacher: What question are you guys answering? How many bunches of balloons or how many ...
              Bunches means groups, so are you talking about how many groups of balloons they
              have or are you talking about how many balloons they have? [crosstalk 00:49:50] okay.
              We know the answer is 20. Write equal 20, so we know. We're counting balloons.

Students: What equals 18?

Students: On both? Wait. [00:50:00]