

MALLORY WILLIAMSON: Okay. Now I'm going to give you the second act. So, you can use that information to then share your thoughts.

STUDENT: I'm gonna glue it.

STUDENT: 5 times 6 is 30.

STUDENT: But, will she do—

STUDENT: This is where—

STUDENT: This shows where we got 3 and 6, which we got 18 from.

STUDENT: Yeah. So, you guys can work on that while we work on this. Cause we still need to work on this. So—

STUDENT: 3. 6. Oh, we kinda [inaudible]. This isn't—

STUDENT: How you told me the measurement if you don't know that yet?

STUDENT: 'Cause this is 3.

STUDENT: Oh, that is.

STUDENT: So, that means they're 18 all.

STUDENT: Yeah.

STUDENT: I don't know how to explain [inaudible].

STUDENT: Put that right here. [inaudible]

MALLORY WILLIAMSON: —on each cube. And you guys wrote in your notes. Remember that you wrote, there's 3 columns—

STUDENT: And 6... and 3 rows.

MALLORY WILLIAMSON: And 3 rows. So, we can show that as well. So, you can write this information underneath, Angel. Y'all can write this information underneath and draw arrows with markers, something to indicate where the rows are, and where the columns are. Okay? So, there's multiple ways to show that you got 18 and then after that, we can go further and explain what...why we think our height is now ten. Okay? Christopher? Christopher?

MALLORY WILLIAMSON: Cause, this shows, like, a front layer. This is a front layer, there's 18 in the front. But then when you also talk about, you can show that's a second strategy. So, we can also record that below as well. Okay? There's more than one way to record what we see.

STUDENT: What?

STUDENT: Write 6 columns and 1, 2, and 3.

MALLORY WILLIAMSON: Okay, what are we going to do for our second image.

STUDENT: To show that there are 3 and 6.

STUDENT: You can draw one more.

MALLORY WILLIAMSON: Yep. You want to do that?

STUDENT: So, you can circle 3 and then you can circle 6.

MALLORY WILLIAMSON: Because 6 times 3 means you did repeated addition. 6 plus 6 plus 6, okay? So, we can circle our groups of 6.

STUDENT: I'm just circle like that.

MALLORY WILLIAMSON: Well, that would be circling groups of 3s. So, if you want to do... You can either circle the groups of 6, or circle the groups of 3. Who's got the marker? You want to do that?

STUDENT: Right here.

MALLORY WILLIAMSON: You want to do that?

STUDENT: And now I'll do this one cause—

STUDENT: Wait, so, like that? Or, circle like that?

MALLORY WILLIAMSON: Well, she wrote.... It's up to you. Because she wrote 6 times 3 is 18. So, how would you like to show that on your image?

STUDENT: Like that.

MALLORY WILLIAMSON: Okay. So, go ahead and do that.

STUDENT: Try not to... I'll try not—

MALLORY WILLIAMSON: That's okay. It's a picture. As long as people understand what you're trying to get.

STUDENT: What was that? That was loud.

STUDENT: It's my marker.

MALLORY WILLIAMSON: Okay. So, instead of taking a look at this and saying, "Oh, 1-2-3-4-5-6. What can we record in the groups, so someone automatically knows what's—

STUDENT: You could put 6.

STUDENT: You could the number 6.

MALLORY WILLIAMSON: Okay. Let's see that.

STUDENT: I'm just gonna put—

MALLORY WILLIAMSON: That's fine. Either way you want to do it. Okay. And so, this is repeated addition. So, we can put the addition symbol in between, and then Joyce below can do the "6 times 3 is 18," which is she had on her paper.

STUDENT: That's the line for the plus.

MALLORY WILLIAMSON: That's not going to look like it. (laughing) You can go put the line—

STUDENT: There.

MALLORY WILLIAMSON: Okay.

STUDENT: That will work.

STUDENT: Okay.

MALLORY WILLIAMSON: Okay. So, how do we use this information now to figure out how many cubes are in the box? So, that's the second step that we need to try to record.

STUDENT: Um, oh man—

MALLORY WILLIAMSON: So, we go back to what we wrote down. We wrote down 18 times 6 is a 108, or 18 times 5 is 90. So—

STUDENT: We thought there were like 5.

STUDENT: We thought there was 5.

MALLORY WILLIAMSON: Okay.

STUDENT: Cause, we didn't know how—

MALLORY WILLIAMSON: So, that's something that we can now record.

STUDENT: Cause, we didn't know how big each cube was.

STUDENT: Yeah, so we thought there was, like, 5 going upward. 3 going this way?

STUDENT: Uh,

MALLORY WILLIAMSON: Yes.

STUDENT: Yeah.

STUDENT: And then—

MALLORY WILLIAMSON: [inaudible] So, then we took the information and then.... So, how can we show 5 layers of 18? What does 5 layers or 5 sets of 18 look like?

STUDENT: 18 times 5.

MALLORY WILLIAMSON: With the picture.

STUDENT: The picture?

MALLORY WILLIAMSON: Yeah. And you can use the grids on your paper to show you. So, 5 sets of 18. Um, we did 6 sets of 18, right?

STUDENT: Mm-hmm (affirmative).

MALLORY WILLIAMSON: 'Cause we thought our height was 6? So, how can I draw a picture to show what 6 sets of 18 looks like? 'Cause that's what layers are, the layers are like slices. Okay? So, using... 'Cause we have plenty of grid paper, how can we draw 6 sets of 18?

STUDENT: We could, um, like—

STUDENT: It'll be, like, 6 times [inaudible].

MALLORY WILLIAMSON: Yeah. Yeah. 18, 6 times. And when we draw 18, 6 times though, we still have to follow this pattern of 3 by 6. So, we can go 3 by 6. 8... 6 times? 6 times.

STUDENT: Can we use that as one? So, if our second, it will be two. [inaudible 00:06:28]

MALLORY WILLIAMSON: Yeah, you can. As long as you number it. So, if I were to come back and see it, you could say, "Oh, that's the top layer." And then, do the 5... other 5. (silence) And I'm going to actually switch spots with you, so then you could start drawing the second one.

STUDENT: We'll each draw one. That'd make more sense if we each do it.

MALLORY WILLIAMSON: So, this was the top layer. How can we start drawing the second layer, which is right behind that front layer?

STUDENT: We can use the grid paper squares [inaudible].

MALLORY WILLIAMSON: Sorry. (laughing) Okay.

STUDENT: Do we have [inaudible]?

MALLORY WILLIAMSON: Well, you can just put 18 in the middle.

STUDENT: All right.

MALLORY WILLIAMSON: For the sake of time, I'm not going to make you number all those. Okay.

STUDENT: Uh, [inaudible].

MALLORY WILLIAMSON: Yeah, go for it.

STUDENT: Okay. Okay. [inaudible]

STUDENT: We have 18, um—