KATY HOLMES: Whiteboards, marker, eraser, carpet. All right. So we have some directions on the board. All right. Are we ready?

STUDENTS: Yeah.

STUDENTS: Yes.

KATY HOLMES: Eyes on the smart board. All right, so we're—so your job is you need to create the closest possible sum. Remember we talked about what does the sum mean?

STUDENTS: The answer.

KATY HOLMES: To what?

STUDENTS: To an addition problem.

KATY HOLMES: To an addition problem. So the closest possible sum to 100 without going over, by filling in the boxes using the whole numbers one through nine. So do we have zero?

STUDENTS: No.

KATY HOLMES: No. What—so you can use those numbers no more than one time each. Now, how many addends do we have up there?

STUDENTS: Two.

STUDENTS: Three.

KATY HOLMES: We're adding a 2 plus 2 plus 2. All right? Go.

STUDENT: What?

KATY HOLMES: So you're going to have to make [inaudible] a two-digit number plus—plus a two-digit number. You can only use the numbers one—You've got a problem, solve through it.

STUDENT: It's hard.

KATY HOLMES: I know. It's okay, though. Look at me. There's no wrong answer, okay? All right. I'm going to give you about 30 more seconds, then you're going to be able to talk to your partner.

STUDENT: Yeah.

KATY HOLMES: All right. Super focus. All right. I want—it's okay, it's okay. I want you to talk with—talk with your partner about your equation. How did you solve this equation?

STUDENT: I did 23—plus 24 plus 52.

STUDENT: I did 35 plus 41—

STUDENT: What does yours equal?

STUDENT: I didn't add it up yet.

STUDENT: Wait, you're not going—oh, yeah, you're going over.

KATY HOLMES: Why don't you start over here? Then you have lots of space.

STUDENT: You're going a little over.

STUDENT: I know. I erased the board.

STUDENT: Seven for that.

KATY HOLMES: Walk me through what you did.

STUDENT: So, I, um, so I, I put 24 plus 35 plus 16. So 4 plus 5 is 9, plus 6 is 15, so I put the one on top of the tens, and then I put the 5 on the one, so 1 plus 2 is 6, and 6 plus 3 is, um, 6 and then s—6 plus 1 is 7, so I wrote 75.

KATY HOLMES: Very good. What does this one mean up here?

STUDENT: Um, one of the 10—the 10 of the 15 just got added to the 10.

KATY HOLMES: Do you mind sharing that on the board in a minute when we do it? Thank you. Awesome job, Miguel.

STUDENT: And then 66, plus 28, would equal 78.

STUDENT: Yeah, 'cause yours only have three di—three more ones ahead of mine. But if I only added—so if I only took away the six and—and I put it to a nine, and if I—then I put it to a nine, I would have 78.

STUDENT: Yeah.

STUDENT: You're almost close, but yours is a little bit more bigger than mine.

STUDENT: Just three more ones ahead.

STUDENT: So then you can have six over here.

STUDENT: Six.

STUDENT: And then—

STUDENT: That's more than 100.

STUDENT: Yeah. I don't know.

STUDENT: Ah, I'm gonna erase this, change this to a two, one.

STUDENT: That's seven.

STUDENT: So 12, 1, 2, that's 24. What can I use? 24 plus 24.

KATY HOLMES: Who would like to share their thinking? All right, Miguel.

STUDENT: Um, so I put 24 plus 35 plus 16.

KATY HOLMES: Let me get a new [inaudible] . All right, so Miguel's equation.

STUDENT: Is 24 plus 35 plus—

KATY HOLMES: Twenty-four.

STUDENT: Plus 35 plus 16—

KATY HOLMES: Plus 16.

STUDENT: And so, um, so, so I know that 4 plus 5 is 9. And then there's—and, um, 9 plus 6 is 15. So I put the 10 of the 15 into the tens.

KATY HOLMES: Very good.

STUDENT: And I put the five under the ones, so I counted 1 plus 2 is 3. 3 plus 3 is 6. And 6 plus 1 is 7.

KATY HOLMES: Awesome job. Give him a r—give Miguel a, a round of applause for that one. Nice job, Miguel. He used—did he repeat any numbers?

STUDENTS: No.

KATY HOLMES: No. Did he get as close as he could to 100 without going over?

STUDENTS: Yes.

KATY HOLMES: Very good. Anthony?

STUDENT: So, that was hard. I did 9 plus 2—I mean, 9 plus 3 equal—

KATY HOLMES: Hold on, can you tell me your whole equation first?

STUDENT: Okay, I did 12 plus 23 plus 49.

KATY HOLMES: I'm sorry. 12 plus what?

STUDENT: 12 plus 23.

KATY HOLMES: Twenty-three.

STUDENT: Plus 49.

STUDENT: [inaudible] two repeated numbers.

KATY HOLMES: Oh, he does, but that's okay. We'll let it slide for right now. Go ahead.

STUDENT: So 9 plus 3 equals 12.

KATY HOLMES: So he's starting with the two bigger numbers. Nice strategy.

STUDENT: And I added two and it equals 14.

STUDENT: This is just like mine.

STUDENT: And I regroup my nine.

KATY HOLMES: Why?

STUDENT: Because it equals more than nine.

KATY HOLMES: It equals more than nine, so we got to put it in the—?

STUDENT: Ones.

KATY HOLMES: The tens place.

STUDENT: And I added 4 plus the 2 up there.

KATY HOLMES: Is there something we need to still do with this number?

STUDENT: Yeah. He still needs to do something.

KATY HOLMES: What does he have to do?

STUDENT: He needs to—he needs to put the four in the ones place, and then he needs to count up the tens.

KATY HOLMES: Very good. Thank you for helping him out.

STUDENT: So then I did 4 plus 2 plus 2, and it equals 8.

KATY HOLMES: So 4 plus 2 plus 2 equals 8. Very nice. Give h—Anthony a round of applause for that one.

STUDENT: Can I show you mine?

STUDENT: Next is-

KATY HOLMES: Let's do one more.

STUDENT: I still have one in my head.

KATY HOLMES: Mia, can you tell me your equation?

STUDENT: I did 14 plus 26 plus 34.

KATY HOLMES: Now, what strategy did you use?

STUDENT: I added up 14 plus 26.

KATY HOLMES: So what did you build first? What are those called?

STUDENT: Tens and ones.

KATY HOLMES: She did tens and ones. So for the number 14, how would we build the number 14?

STUDENT: Fourteen, you would—we would have one ten—

KATY HOLMES: One ten.

STUDENT: —and four ones.

KATY HOLMES: And four ones.

STUDENT: And then—and then two tens, and six—and six ones. And then I counted them up—I counted them up in all, so—and the tens were 30, and—

KATY HOLMES: Do we have all of our numbers? Do we have all of our models made?

STUDENT: No.

KATY HOLMES: So do we need one more model? What about this number, Kamille?

STUDENT: Thirty-four.

KATY HOLMES: So how many tens?

STUDENT: Three tens and four ones.

KATY HOLMES: Let me make those look like ones.

STUDENT: Ms. Holmes?

KATY HOLMES: Yes?

STUDENT: Actually, instead of doing that, I added these two together, and then I did these ones again.

KATY HOLMES: Oh, that's a good strategy too. So let's add this one together. So how many ones do we have?

STUDENT: We have 14.

KATY HOLMES: Juliana?

STUDENT: Fourteen.

KATY HOLMES: We have 14.

STUDENT: And we have six—60 tens.

KATY HOLMES: Do we have 60 tens?

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STUDENT: Six.

KATY HOLMES: Six tens.

STUDENT: Sorry. I mean—

KATY HOLMES: Which equals the number?

STUDENTS: Sixty.

KATY HOLMES: Sixty. So we could take 60 plus 14 and get?

STUDENT: I was gonna say it was actually 70.

KATY HOLMES: Seventy-four. Nice job, great job working through that. That was hard. That was a difficult one. Nice job. All right. So go ahead and erase your boards for me.

STUDENT: Look what I did, Ms. Holmes.

KATY HOLMES: Oh you made a 200, very nice.

STUDENT: It is okay, London.

KATY HOLMES: All right, so go ahead and erase your boards, and go back to your seat and you will need a pencil.