students in determining what to add. The last two problems in the string are designed similarly—to press students to give careful thought to the question of what needs to be added.

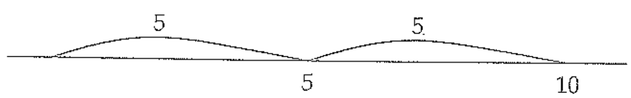
A Portion of the Minilesson

Inside One Classroom

Diana (the teacher): OK, it seems everyone is convinced that 5 × 5 equals 25. Here's the second problem, 2 × 5. Show me with a thumbs-up when you have an answer. *(Sees many thumbs up.)* Jean?

Jean: I just know that one—it's 10.

Diana: Let me draw what you said on a number line just like we did for 5 × 5. *(A line had been previously drawn showing 5 jumps of 5—a result of the earlier discussion on the first problem.)* I'll make a line to represent the length of the cubes:



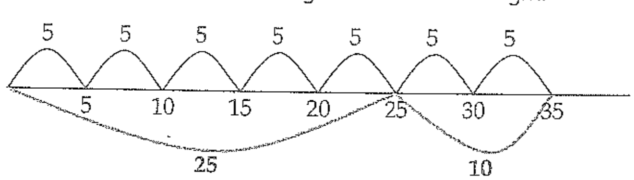
Everyone agrees with Jean? Two fives get us to 10? *(Many nods.)* OK. Here's the next problem, 7 × 5. Thumbs-up when you are ready. Susie?

Susie: It's 5, 10, 15, 20, 25, 30, 35. I kept track with my fingers. *(Demonstrates aloud, showing her fingers.)*

Diana: *(Draws a new line to represent the 7 jumps of 5.)* OK. Skip-counting works and here is a picture of what you said. I wonder…is there an easier way to do this?

David: You can just use the first two problems.

Diana: Oh, that's an interesting shortcut, isn't it? So let me represent that on the number line with a different color. *(Draws a curve below the 5 groups of 5 and then a curve below the 2 jumps of 5.)* Let's put it on the same number line so we can figure out if David is right.



(Discussion occurs and when consensus is reached that David's strategy works, Diana writes 7 × 5 = 5 × 5 + 2 × 5).

Author's Notes

Diana has built a train of connecting cubes, in groups of five using two colors. She places this train horizontally against the chalkboard, and draws a line alongside the length as Jean gives the answer.

Here the use of the double number line allows the students to explore equivalent relations.