Minilesson: Around the Circle (10–15 minutes)

Facilitate a minilesson focused on multiplication and division by ten and the place value patterns that result.

This mental-math minilesson is designed to encourage students to use the place value patterns when multiplying by ten. Have the students sit in a circle. Ask them to count around the circle aloud by ones and write their numbers on a piece of paper. Then ask a student to display his or her number for everyone to see. Explain that now everyone will count around the circle again but this time counting by tens; with the student who said "one" the first time around saying "ten" this time. Ask for predictions of what number the students will get this time. [Note: For example, a student who wrote down 16 last time should get 160 this time.] Do this several times with different numbers. If guesses are random, stop after a few students have skip-counted and ask students to reconsider their original predictions: would they change these, and why? If this procedure is easy for the students, count by ones around the circle twice or three times so that greater numbers come up. At the end of the count-around, highlight the mathematics in the following way: "Mary had a 23; then we counted by tens and she had 230. Nora had a 48 (after counting around twice). When we counted by tens, she had 480." You might also write 23 × 10 = 230. Discuss the place value pattern that students notice and ask if they think the pattern is connected to the work they did with the boxes on Day Two.

A Portion of the Minilesson

Inside One Classroom

Toni (the teacher): *(Records students' predictions on chart paper as they say them. The number was 32.)* OK, 120, 200, 300, 322, 480, 200, 260, 240. Any other predictions? OK. Are there any predictions up here that you feel are unreasonable, given that we have 32 students counting and we're counting by 10?

Giles: Yeah, 120.

Toni: Why 120?

Giles: It seems too low. When 10 kids count, we would already be at 100. So 32 kids counting has to be a lot more than 120.

Toni: What do you think about what Giles just said? Any other predictions that you feel are unreasonable?

Katie: I don't know how unreasonable it is, but I know we won't end at 322.

Toni: And how do you know that?

continued on next page

Author's Notes

Toni records all predictions, but then encourages students to think about the reasonableness of their estimates.

Rather than agreeing or disagreeing with Giles, Toni poses a question. This neutrality supports both Giles, who gives the answer (he needs to explain or justify his thinking to the community), and the other students in the class (they need to consider why 120 might be an unreasonable prediction).