# How Many Teams?

Students are just beginning to work on division problems in this Investigation. They are given the following story problem:

*How many teams of 14 can you make with 126 students?*

As the teacher listens to students discussing their strategies for solving $126 \div 14$, she is getting a first look at how students approach a division problem with numbers of this size.

**Teacher:** As you were working, I saw many different strategies for finding how many teams of 14 you can make with 126 students. Would someone tell us how you started? Jill?

**Jill:** $14 \times 10 = 140$.

**Teacher:** How many people started out that way? (3 hands go up.)

**Jill:** $140 - 14 = 126$. Then I did 10 times 14 minus 1 times 14 equals 126. And then I knew $10 - 1$ is 9. And that came to 9 teams.

**Teacher:** When you got $14 \times 10$ and 140, what did that tell you?

**Derek:** It was too much.

**Teacher:** What was too much?

**Derek:** 10 teams of 14 is 140, but you only have 126 kids, so you need less teams than that.

**Teacher:** Who did something different?

**Tonya:** 14 plus 14 equals 28. 28 plus 28 equals 56. 56 plus 56 equals 112. Plus 14 is 126.

**Teacher:** How did you know how many teams you had?

**Tonya:** You did 14 plus 14 is 28, so that is two 14s there. 28 plus 28 is 2 in each. And then another 56, and that is 4 in 56. And that last one will equal 9.

**Abdul:** I did something like that—I put them in circles: 14, 14, 14 . . . I started with 3 at first.

**Teacher:** How did you know when to stop?

**Abdul:** I started with 8 circles because I thought that might be close. I did 10, 10, 10 . . . and I did 10 times 8 is 80 and then 8 times 4 is 32 (to get 112), then I put another 14 is 126.

**Alejandro:** I started with $7 \times 9$ and $7 \times 9$ because 7 is half of 14. I got 63 and then added $63 + 63$ to get 126.

These students' strategies for division demonstrate a range that is typical in a fourth-grade classroom. Students are using number relationships that they know ($14 \times 10 = 140$, half of 14 is 7), as well as a basic understanding of division as making groups of the divisor. The teacher asks questions to help students clarify how their computations relate to the original problem about teams and as a way of bringing other students into the discussion. Students will continue to develop and share their strategies as they solve more division problems in this Investigation.