

## A TEACHER REFLECTS



Not all of my students were really comfortable with setting up algebraic expressions. In Lesson 5 when we reviewed the chart

Expressing the Value of the  $n$ th Term Algebraically, we spent some time carefully relating each part of the rule to its description in the expression  $3n + 2$ . I asked if the expression for the  $n$ th term correctly described the value of the fourth term. Terry answered, “Yes, because the  $n$  stands for the number of the term which is 4; so 3 times 4 is 12 and 2 more is 14, and that’s what’s in the chart.”

We continued with more discussion questions about the sequence:

- What would the value of the twentieth term be? (Answer:  $3 \times 20 + 2 = 62$ )
- Which term has a value of 20? (Answer: the sixth term)

The second question gave students practice in working backward through the expression:  $20 - 2 = 18$ ;  $18 \div 3 = 6$ . It helped some students to make a diagram to see what operations they needed to “undo” to find the answer.

When I asked what kind of growth sequence the chart shows, not everyone was sure at first because both multiplication and addition are present in the rule. But as we continued examining what happened to the number as the term numbers increased, students identified it as an addition sequence with a growth number of 3.