

## A TEACHER REFLECTS

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Building with tiles and cubes provided a lot of “ahas” for my students. When building the rectangles, students were surprised to see that the square numbers (9, 16, 25) were actually squares. Similarly they got very excited during the next day’s lesson when the cubic numbers (8 and 27) produced cubes. Working with the rectangles and rectangular prisms provided clarity in their understanding of dimensions. I found the correlation of dimensions and factors to be especially useful. My students seemed to come to terms with factors much more quickly by playing with the tiles. As Michelle pointed out, “I can see the factors in my head when I think of them as dimensions of a rectangle.” Several students referred to building rectangles as they worked with factors in Lesson 2.

I found the use of “common strings” in Lesson 2 an effective way to determine the greatest common factor. My students chose to work both with prime factor strings and factor trees. One student, Todd, was having difficulty in identifying the shared common strings for 24 and 30 because some of his factors were not prime. Another student, Anna, pointed this out to him and recommended that he make a factor tree for each of the numbers. After circling the ends of each branch, Todd was able to find all of the shared factors for 24 and 30.

Lesson 5 was an eye-opener for me. I had always either taught properties in isolation or neglected them. Showing the students that they already

knew and used the properties intuitively was immensely freeing. Rather than trying to identify each property by name, we simply referred to them by the type of change that was made. So, the commutative property became “you can add or multiply numbers in any order” and the associative property became “it doesn’t matter how the numbers are grouped when you are only adding or only multiplying.” After this lesson, my class became increasingly facile with using the properties and noticing that they were using them. We even came up with our own names for the properties—the *grouping property* and the *any order property*.