

## A TEACHER REFLECTS



Lesson 10 was quite helpful for my students. Initially a group of them wanted to jump ahead to the computation. I handled this by praising their efforts and asking them to write down the steps needed to add fractions. Only a few were able to do this, and I gave those students the choice to skip using the models. The remaining students used the paper strips and number lines, and the investigation did build their understanding of fraction addition.

I had one student who tends to struggle in math make a great leap. She followed other students in labeling the ticks on her number line with 12ths and making correct paper strips to add. At first she simply laid them end to end and wrote down the sums. I sat with her while she did this, knowing that she didn't understand, for example, why  $\frac{1}{3} + \frac{1}{4}$  would equal  $\frac{7}{12}$ . When asked, she could not say why the answer was in twelfths. But after working through more problems with the models, she noticed that for each sum, the denominators of the addends could be divided equally into the denominator of the sum. This understanding made it much easier for her to make the leap to computation in Lesson 11.

My students very much enjoyed working with and creating the Magic Squares. The squares reinforced the notion that when adding and subtracting fractions, it helps to convert the fractions so that they all have like denominators. As one student pointed out, "If you make all the fractions have the same denominator, you can

just work with the numerators—it's like using whole numbers!" Students found this knowledge helped them in creating their own squares. They began by choosing fractions for which it would be easy to find a common denominator, for example halves, fourths, and eighths. They then chose what their sum would be, for example, 2. At this point, since they were working with eighths (the common denominator) they simply made sure that the numerators in each row and column added to 16. At my students' request, I ended up taking some of their self-created squares and giving the class an extra-credit worksheet. Nearly all of the class completed the worksheet!