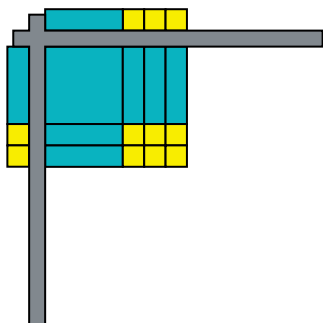
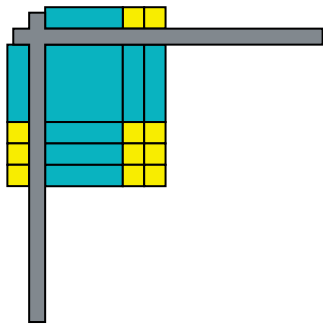


A TEACHER REFLECTS

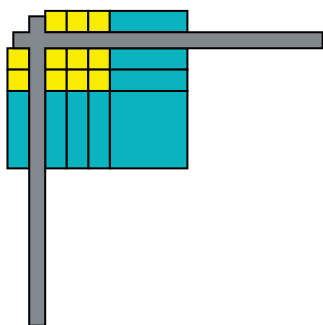
Alison's Method



Jorge's Method



Lynelle's Method



Setting Up a Lab Gear Classroom

I was fortunate enough to have two overhead projectors in my classroom. This really came in handy when students presented their results. I had one student use one of the overhead projectors to demonstrate the Lab Gear moves while another student wrote the corresponding expressions or equations at the other projector. This was a great bridge from the concrete to the abstract!

Some of my students were hesitant to use the Lab Gear blocks at first. They felt that using manipulatives was childish. I explained that the Lab Gear blocks are tools for understanding algebra and I compared them to a calculator or a slide rule.

Some students wondered why they needed to use Lab Gear at all if they already understood a concept. While I always encouraged students to solve problems using any methods that made sense to them, I also stressed that the algebra concepts would get progressively more complex and that it was important to be familiar with basic Lab Gear language when those occasions arose.

Some Classroom Rules

I established a few rules at the beginning of this unit. First, I stressed the importance of everyone's undivided attention whenever someone was speaking to the whole class. At these times, I asked students to put down any Lab Gear they may have been working with. After a while, the

“no plastic in your hands” rule became automatic when someone was addressing the class.

The second rule was that Lab Gear had to be put away so that the next students to use it would have no trouble finding all of the pieces they needed. I allowed a little time at the end of each class for cleaning up, and I was happy to see that this process was eventually accomplished very quickly.

Using the Corner Piece

Multiplication with the corner piece turned out to be a great opportunity to discuss equivalent expressions and algebra properties. When students multiplied $(x + 2)(x + 3)$ there were several different, but correct, setups. **Alison** arranged the blocks so that $x + 2$ appeared along the vertical edge of the corner piece. **Jorge** set up the blocks with $x + 2$ along the top edge. This led to a nice discussion of why $(x + 2)(x + 3)$ is the same as $(x + 3)(x + 2)$ and the commutative property.

Our discussion got even more interesting when **Lynelle** presented her method. She placed the unit blocks closest to the corner. Some students argued that the x blocks always needed to come first, but Lynelle was able to demonstrate that she got the same result as everyone else.