Meet the Lab Gear®

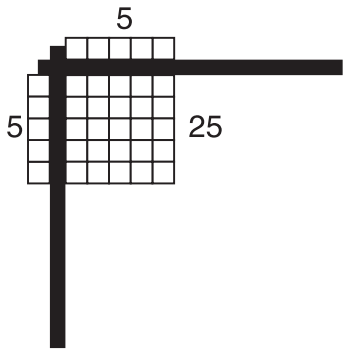
New Words and Concepts

- Variables
- Constants
- Squared

In this lesson, students explore the collections of Lab Gear, organizing the sets into groups of like blocks. This is the first look at the blocks that will be used throughout the program.

Teaching the Idea

1. Give each pair of students a box of Lab Gear blocks. Say, **Group blocks that are alike together.** (Students should find 14 different kinds of blocks, though there is only one x^3 and one y^3.) If you have an interactive whiteboard or document camera, use it to lead the discussion. (From here on out, the words "on the screen" will be used to refer to this.)
2. Say, **Guess the names for the three yellow blocks.** (If necessary, tell them that the smallest one is called "1." For the other two, mention that counting can help. After they have both been named, show that the "25" could have been figured out by multiplying length and width. Place the block in the corner piece, with a "5" to measure each side, and explain that we have five times five units, or five squared.) This is the first appearance of the area model for multiplication, a key concept in this lesson, and in this book. We will return to it in more depth starting in Challenge 6 and Lesson 9.



3. Say, **This one is *x*, and this one is *y*. One way to remember it is that the letter *x* is short and the letter *y* is long.**

4. **Guess the names for the other blue blocks.** (These are harder to guess. The most likely correct guesses are for $5x$ and $5y$. Tell the students they will soon learn the names of the other ones.)