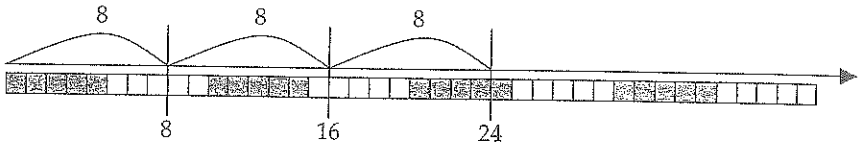
Connecting Cubes with the Open Number Line · B1

Repeated Addition, Skip-Counting, Using Partial Products

This minilesson introduces the number line as way to represent repeated addition and/or skip-counting. Many students may still need to count by ones or use repeated addition. The train of cubes can be used as a physical representation of skip-counting that can act as a transition to use of the open number line. Using two colors of connecting cubes, build a train in alternating groups of five cubes of each color. Attach or hold it horizontally against the chalkboard and draw a line alongside the length.



Mark the skip-counting on the line, but as you progress through the string of problems, encourage students to use the relationships in the string. Represent the jumps on the number line. As the string progresses, the size of the groups changes but the five-structure can still be helpful in determining the products. The related problems encourage students to make larger jumps, using partial products. The problems are limited to basic facts to keep the focus on automatizing the facts. Equivalent problems can be shown on the top and the bottom of the number line, as shown on the second diagram in Inside One Classroom, page 21.

5×5

2×5

7×5

8×5

8×6

6×8

3×8

7×3

Behind the Numbers: How the String was Crafted

The first three problems are a cluster. Students may just skip-count but the cluster supports the use of partial products; the first two can be used to solve the third. The fourth just adds one more group of five to encourage students to use the third problem as a partial product. The fifth problem challenges students to consider what to add, an 8 or a 6. The commutative property is employed to produce the sixth problem from the fifth, in order to support