

# Fractions

## Fractions

### Third Grade Lessons

1. **How Many Points?** - Students work with: (a) a context — distance as a function of time; (b) generating coordinates.

### Fourth Grade Lessons

1. **Cartesian Candy Bars II** - Children work on sharing different amounts of candy bars among different numbers of people. They compare ratios (candy bars per person) and plot points in a Cartesian grid.
2. **Comparing Strips of Unmeasured Lengths I** - The class is the first of a series that will focus directly upon the algebraic representation of measurements and their multiplicative relations. Children are asked to compare the lengths of strips, to describe the relationships between them in multiple ways, and to demonstrate that the relationships they represent are true.
3. **Comparing Strips of Unmeasured Lengths II** - The class is the second of the "Strips of Unmeasured Lengths" series that will focus directly upon the algebraic representation of measurements and their multiplicative relations. Children are asked to compare the lengths of strips, to use algebraic notation to describe the relationships between them, and to demonstrate that the relationships they represent are true.
4. **Comparing Strips of Unmeasured Lengths III** - This is the third lesson in the "Strips of Unmeasured Lengths" series that focuses directly upon the algebraic representation of measurements and their multiplicative relations. We will work with the relationship  $B = 3S$ , focusing on equations and their verbal descriptions and on true and false equations and statements.
5. **Three to One** - Children discuss and produce verbal and mathematical statements on the proportion,  $S:L :: 1:3$ , that is, on the function  $f(x) = 3x$  and on its inverse  $f^{-1}(x) = 1/3 x$

### Fifth Grade Lessons

1. **Elapsed Time** - A variant of the train crash problem is used to address questions about elapsed time. The task is to determine where a train is, given a certain time.