

## Lesson 16: Building a Number Line

**Purpose:** To form the beginning of a number line

**Materials:** Fraction Bars, pencils, Master #8 "Fraction Number Line" and markers

### TEACHER MODELING/STUDENT COMMUNICATION

#### Activity 1 Forming a number line from 0 to 1

1. Each group will need a deck of bars and each student will need a pencil and a copy of Master #8 "Fraction Number Lines."

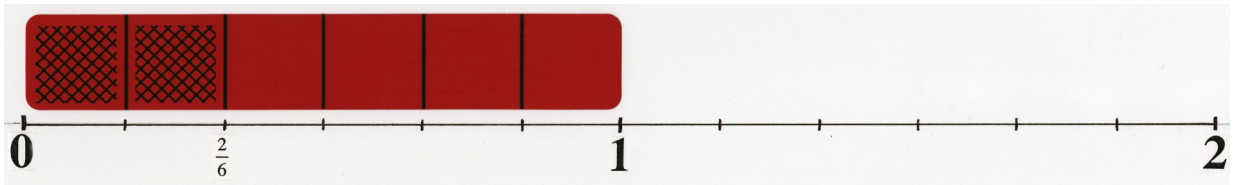
Master #8

- What do you notice about your number line? (It has the numbers 0, 1, and 2. It has six spaces between 0 and 1 and six spaces between 1 and 2.)
- Which type of your bars is divided into six equal parts? (red bars)

Fraction Bars

- You can think of this line between 0 and 1 as a very skinny bar with 6 equal parts. Instead of shading the parts, we will write fractions beneath the marks on the line.

Find the red bar with two parts shaded and place it above your line between 0 and 1.



pencils

- What fraction should we write below the line for this bar and where should it be written? ( $\frac{2}{6}$  should be placed beneath the mark at the end of the shaded part of the bar.)
- Write this fraction on your number line.
- Select a different red bar that is not a zero bar or a whole bar and place it on your line between 0 and 1. Write the fraction for the bar on your line. Ask a volunteer to describe the bar they selected and the fraction they wrote on their number line.

Repeat this activity for other red bars that are not a whole bar or a zero bar until all the fractions between 0 and 1 have been written on the line.

Have students place the red zero bar between 0 and 1 and ask:

- Why is the number 0 written for the zero bar? (Because the fraction  $\frac{0}{6}$  is equal to 0.)

Have students place the red whole bar between 0 and 1 and ask:

- Why is the number 1 written for the whole bar? (Because the fraction  $\frac{6}{6}$  is equal to 1.)