## Fractions as Numbers on the Number Line

In this 35-day module, students extend and deepen 2nd grade practice with "equal shares" to understanding fractions as equal partitions of a whole. They formalize their knowledge as they work with area models and the number line.

In this activity, students specify and partition a whole into equal parts, identifying and counting unit fractions by folding fraction strips.

Students will learn to partition number lines into fractional parts, renaming whole numbers as fractions.
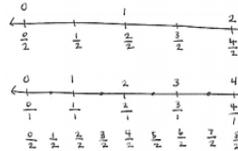
Key Terms and Ideas

New Terms:

Unit fraction- fractions with numerator of 1

Non-unit fraction- fractions with numerators other than 1

Fractional unit- half, third, fourth, etc.

Equal parts- parts with equal measurements

Unit interval- the interval from 0 to 1, measured by length

Equivalent fraction- fractions that are the same size, or the same point on a number line

Copies- refers to the number of unit fractions in one whole

Terms and Symbols to Review:

Number Line

Arrays

Equal Shares

Whole

Fraction

Partition

=, <, >

Module 5 Sample Problem
(Example taken from Lesson 22)
Mr. Ramos wants to nail the TV cord against the wall so no one trips. He puts 7 nails equally spaced along the cord. Draw a number line representing the cord. Label it from 0 at the start of the cord to 1 at the end. Put a mark where Mr. Ramos puts each nail with a fraction.

a. Build a number bond with unit fractions to 1 whole.
b. Write the fraction of the nail that is equivalent to ½ the cord.
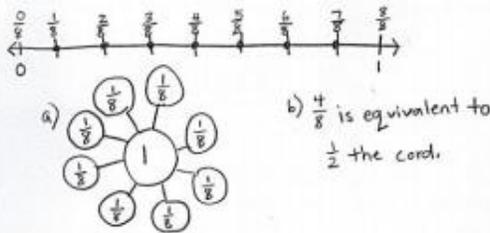
⇒ Continue to review multiplication and division math facts with your student

⇒ Help students practice partitioning household items (pieces of paper, portions of food, a pack of crayons, etc.) into equal parts

Key Idaho Content Standards:

- **Develop understanding of fractions as numbers**

  o Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$

  o Understand a fraction as a number on the number line; represent fractions on a number line diagram.

  o Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

- **Reason with shapes and their attributes**

  o Partition shapes into parts with equal areas