

Welcome to Third Grade Module 5. In Module 5, students will practice with equal shares and understanding fractions as equal parts of a whole. Students will learn to make fraction models, to compare unit fractions, and to write and think of fractions as numbers on a number line. This is a key concept that will lay the foundation for fourth grade math. Students will also use number lines to see equivalent fractions.

## Important Words and Concepts

- Unit Fractions: fractions with numerator 1 ( $1/2$ ,  $1/4$ ,  $1/3$ )
- Non-unit fractions: fractions with numerators other than 1 ( $3/4$ ,  $2/3$ ,  $2/5$ )
- Fractional units: half, third, fourth, etc.
- Equal parts: parts with equal measurements
- Unit interval: the interval from 0 to 1, measured by length on a number line
- Equivalent fraction: two fractions that name the same size
- Copies: number of unit fractions in 1 whole
- Number line:
- Halves, thirds, fourths, sixths, eights ( $1/2$ ,  $1/3$ ,  $1/4$ ,  $1/6$ ,  $1/8$ )
- Half of, one third of, one fourth of ( $1/2$ ,  $1/3$ ,  $1/4$ )
- Whole: 2 halves, 3 thirds, 4 fourths
- Equal shares: pieces of a whole that are the same size

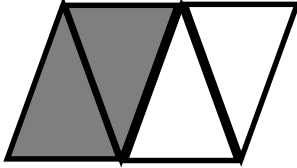
## Multiplication and Division within 100

Fluency of multiplication and division facts, up to 100 will continue to be stressed in third grade. In this module, students will work with finding equivalent fractions on a number line. If they have knowledge of basic multiplication facts, students should begin to see the relationship between multiplying numerators and denominators in fractions to get equivalent fractions.

## KEY STANDARDS

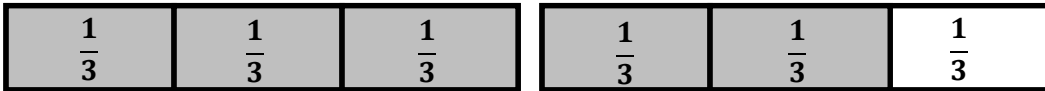
- Understand a fraction  $1/b$  (For example,  $1/3$  is 1 piece of a whole cut into 3 equal parts)
- Understand a fraction  $a/b$  as a part of size  $1/b$  (For example,  $3/4$  is 3 pieces of a whole cut into 4 equal parts)
- Understand a fraction as a number on a number line
- Explain equivalent fractions; understand two fractions as equivalent if they are the same size or the same point on a number line
- Express whole numbers as fractions ( $4/4$  is 1,  $3/1$  is 3)
- Partition shapes into parts with equal areas, and express the area of each part as a unit fraction of a whole (divide a rectangle into four equal pieces, and tell that each piece is  $1/4$ )

## Graphics and Strategies you may see...



Students are taught to find the unit (how many equal pieces the shape or picture is divided into).

**This unit is 1 fourth. 2 fourths are shaded in the picture.**



Using the unit fractions, students begin to write non-unit fractions greater than 1 whole.

**The unit is 1/3. 5/3 of the bar is shaded.**

$\frac{1}{2}$



$\frac{1}{4}$



$\frac{1}{8}$



$\frac{1}{3}$



$\frac{1}{6}$



Students can compare fractions of different units by using **fraction strips**.

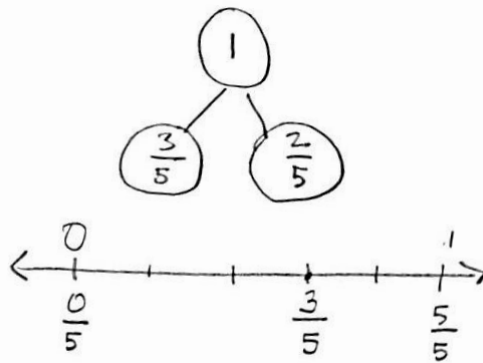
$$\frac{1}{3} > \frac{1}{6}$$

# Math Connections for Parents

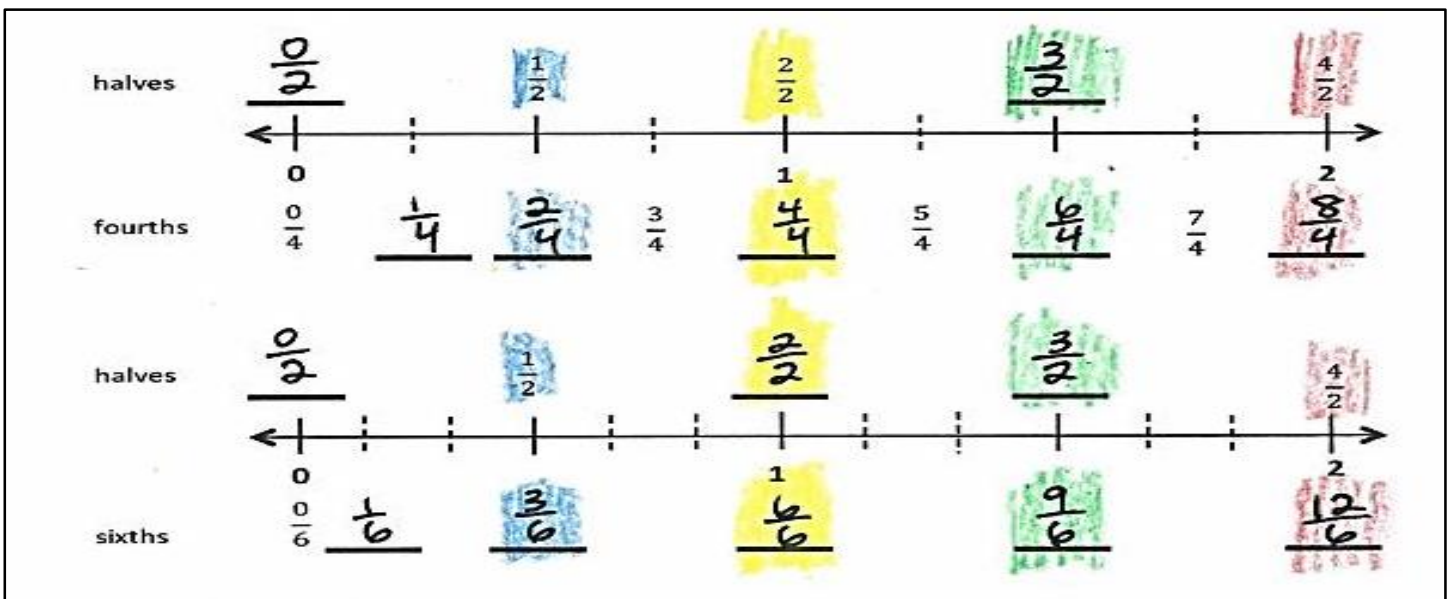
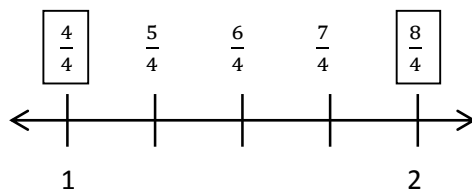
Grade 3 Module 5

Fractions as Numbers on the Number Line

Students begin to work on a number line from 0 to 1 to show fractions:



Then, students begin to show fractions on number lines greater than 1:



Students use a number line to see fractions that “line up” or have the same size and are **equivalent fractions**.