

DUVAL Math

Parent Tips

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.

What Came Before this Module: Students explored area as an attribute of two-dimensional figures and related it to their prior work with multiplication.

What Comes After this Module: In Module 6, students will begin work on data collection and representation. Specifically, students will generate and analyze categorical and measurement data.

**Third Grade,
Module 5**

**Special points
of interest:**

- ✓ Word to Know
- ✓ Partition a Whole into Equal
- ✓ Fractions on a Number Line
- ✓ Mathematical Practices
- ✓ Want to help your child with DUVAL Math?

Words to Know

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 the number line

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

Terms and Symbols to Review:

Number Line

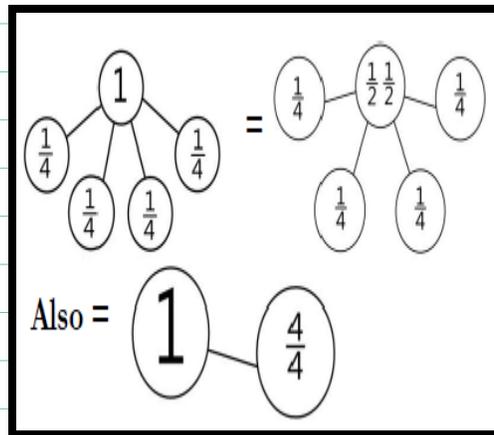
Arrays

Equal Shares

Whole

Fraction

Partition



Questions?

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Partition a Whole into Equal Parts

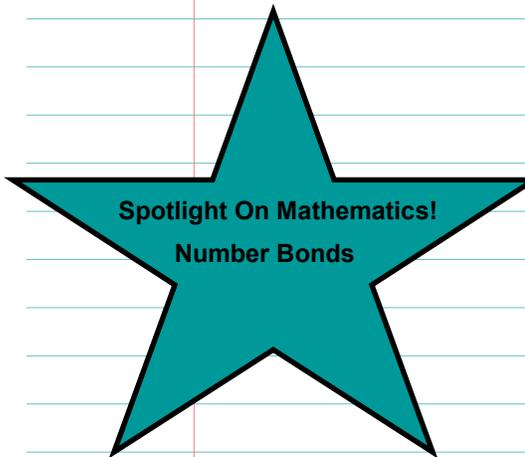
Things to Remember!

unit fraction (the numerator is always 1)		
$\frac{1}{2}$	$\frac{1}{5}$	$\frac{1}{4}$
unit form (a number with a word)		
3 fourths	1 third	3 fifths
numerator \rightarrow $\frac{2}{4}$ \leftarrow denominator		

While identifying fractions students will write the fraction in unit form. Unit form is written with both numbers and words. Writing 1 half is the unit form of the fraction.

Students will also have to look at various fractional shapes and identify which fraction matches the shape.

$$\frac{1}{2} = 1 \text{ half}$$



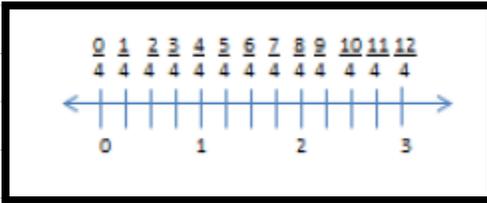
Various number bonds students will encounter in this module

In Grade 3, students compose fractional numbers using number bonds as a powerful tool to see the unit fractions that make up a whole number. They will also use number bonds to decompose whole numbers greater than 1 into fractional parts.

Fractions on a Number Line

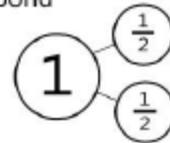
Fractions on a Number Line

A student will be asked to complete a number line given a specific fraction. The student will label the number line using fourths.

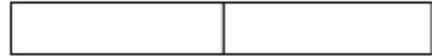


Write a **number bond**. Partition the fraction strip to show the unit fraction of the number bonds. Use the fraction strip to help you label the unit fractions on the **number line**.

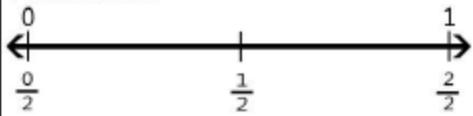
Number Bond



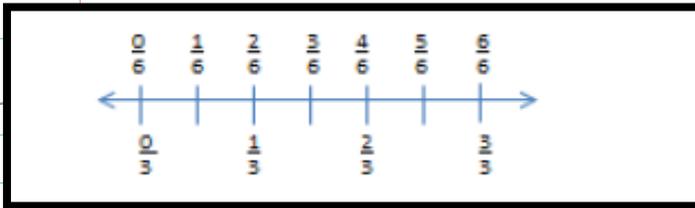
Fraction Strip



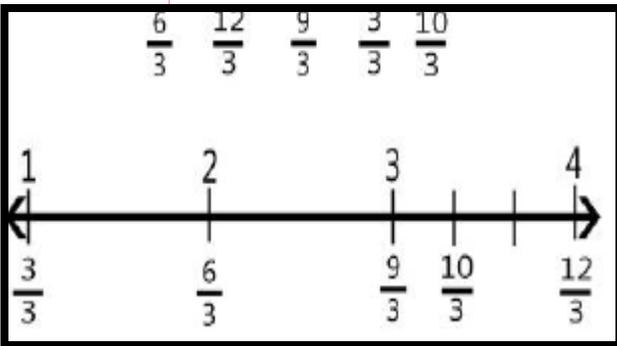
Number Line



The student will be asked to write two different fraction names for a specific point.

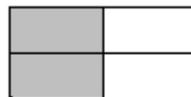
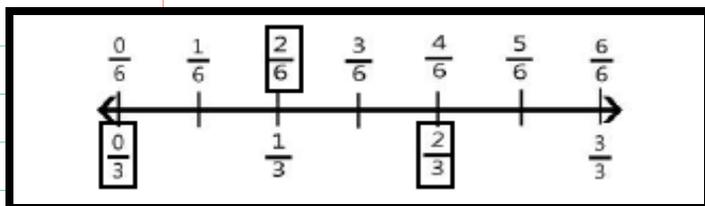


They will also be given a group of fractions and asked to label the number line with the fractions given. The students will also have to use the fractions on the number line to compare which fractions are greater than or less than a



Use the unit fractions on the right to count up on the number line. Label the missing fractions.

Students will also learn about **equivalent fractions**: two fractions that are the same size.



$$\frac{2}{4}$$

=



$$\frac{1}{2}$$

Standards for Mathematical Practice

Mathematical Practices Addressed in this Module:

- MP.2 Reason abstractly and quantitatively.** Students represent fractions concretely, pictorially, and abstractly, as well as move between representations. Students also represent word problems involving fractions pictorially, and then express the answer in the context of the problem.
- MP.3 Construct viable arguments and critique the reasoning of others.** Students reason about the area of a shaded region to determine what fraction of the whole it represents.
- MP.6 Attend to precision.** Students specify the whole amount when referring to a unit fraction and explain what is meant by *equal parts* in their own words.
- MP.7 Look for and make use of structure.** Students understand and use the unit fraction as the basic building block or structure of all fractions on the number line.



Grades K-5 Homework Help Duval County Parent Helpline

**Tuesday and Thursday Evenings (see dates
to the right)**

6:00 p.m. – 8:00 p.m

Grades K-5 Homework Help

*You can access this help on your home
computer so that we can demonstrate the
mathematics on a white board or call in via
telephone.*

By Telephone: (571)-392-7703 PIN: 731 439
616 412

By Web: [click here](#)

Want to help your child at home with
DUVAL Math?

Every Tuesday and Thursday evening,
we are offering a Homework Helpline!
You can access using a home computer
or call in via telephone. Use the link be-
low to access more information!

<http://www.duvalschools.org/Page/17877>