

Further investigations:

When your family is sharing food, talk about “fair shares” and help your child name fractions. If you want to split a pizza among five people, how can you split it fairly? How much does each person get?

Cooking is a great way to learn about fractions. How can we measure $\frac{3}{4}$ cup? Show your child how the fractions appear on a measuring cup. Ask your child to help you double recipes, or cut recipes in half.

Try to notice ads and articles with headlines like “three out of four doctors prefer Brand X pain reliever” or “ $\frac{1}{2}$ of all Americans don’t get enough sleep.” Talk to your child about these ads. What does “three out of four” mean?

Look for decimal fractions in the news. Dimes represent $\frac{1}{10}$ or 0.1 of a dollar.

Terminology:

Common fraction: A number used to name a part of a group or a whole containing a fraction bar, a numerator, and a denominator.

Decimal fraction: A fraction written as a decimal.

Denominator: The bottom number of a fraction that represents the number of equal parts a whole or set has been divided into.

Equivalent sets: Collections containing the same number of objects.

Numerator: The top number in a common fraction representing the number of equal parts of a whole or group under consideration.

Unit fraction: Any common fraction with a numerator of one.



Book'em:

Eating Fractions by Bruce McMillian

The Doorbell Rang by Pat Hutchins

The Half Birthday Party by Charlotte Pomerantz

Related Files:

www.ceismc.gatech.edu/csi

Fractions and Decimals

Students will:

- Recognize that the numerator is the top number of a fraction and that it represents the number of a set or whole
- Recognize that the denominator is the bottom number of a fraction and that it represents the total objects of the set or the total parts of the whole
- Explain the concept that the larger the denominator, the smaller the size of the piece
- Compare simple fractions and tell why one is greater than, less than, or equal to the other
- Represent halves, thirds, fourths, sixths, eighths, and tenths using various fraction models

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Classroom Cases:

- Use drawings to represent $\frac{2}{6} + \frac{1}{6}$.

Case Closed - Evidence:



$$\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$$

- You toss 10 balls in a game at the fair and you only get 3 in the bucket. Draw a representation of your score and write your score as a fraction and a decimal fraction.

Case Closed - Evidence:

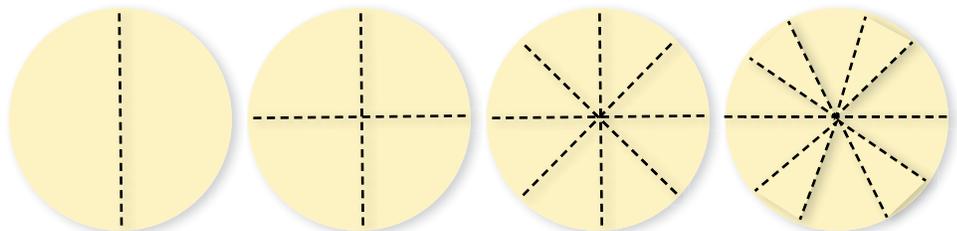


Fraction: $\frac{3}{10}$

Decimal: 0.3

- If you cut a pie into different size pieces with the denominator increasing (such as halves, fourths, eighths, and tenths), what happens to the pieces of pie? Draw pictures to represent your answer.

Case Closed - Evidence:



Clues:

A decimal fraction is just another name for a decimal number.

Your child needs to understand the relationship between fractions and division. She should be exposed to the different notations for the same problem (for example, $6 \div 2 = \frac{1}{2}$ of $6 = \frac{6}{2}$).

Students get confused when asked if one half always equals a half. Show different ways that a half can be represented, such as half of a large pizza and half of a small pizza. The whole determines what the half represents.