Tips for Helping at Home

- Questions to ask:

  What is it that you don't understand (have the student be specific)?

  What about putting things in order?

  Could you try it with simpler numbers?

  Can you guess and check?

  Does this make sense?

  What can you do to explain your answer to show others what you are thinking?

  Does your answer seem reasonable?

- When your family really 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 another great way to learn about fractions. How can we measure ¾ cup? Look together at how the fractions appear on a measuring cup. Doubling recipes, or cutting them in half, can help your child understand how to make new numbers with fractions.

Mathematical Emphasis

Investigation 1—Sharing Brownies

- Realizing fractional parts must be equal (for example, that one third is not just one or three parts but one of three equal parts.

- Developing familiarity with conventional fraction words and notation.

Investigation 2—Pattern-Block Cookies

- Developing familiarity with common equivalent fractions, especially relationships among halves, thirds, and sixths

- Understanding that what occurs between 0 and 1 also occurs between 1 and 2 and between any consecutive whole numbers (for example, ½ + ¼ = ¾, so 2½ + ¼ = 2¾)

Investigation 3—Other Things to Share

- Understand the relationship between fractions and division.

- Relating notation for common fractions with notation for decimals on the calculator

- Using different notations for the same problem (for example, 6 ÷ 2 and ½ of 6)

Websites

Investigations
in Number, Data, and Space

Grade 3

Fair Shares

Fractions

Everett Public Schools
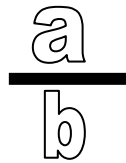
Vocabulary

fraction—any part of a group, number or whole

equivalent fraction—having the same value or amount
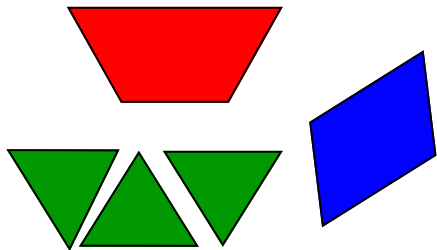
fraction notation—a rational number in the form of a/b

a is called the numerator
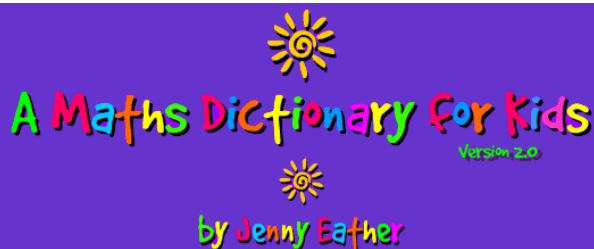
b is called the denominator

$$\frac{a}{b}$$

numerator—number above the line of a fraction, showing the number of parts of the whole

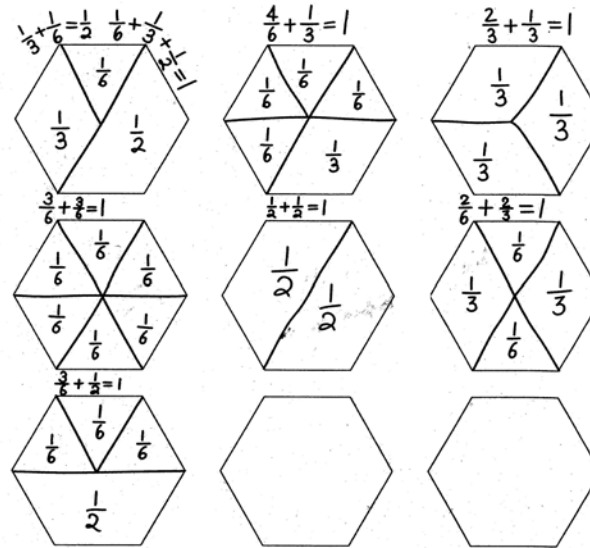**denominator**—bottom number of a fraction; the number of parts a whole is divided into

Glossary

http://www.amathsdictionaryforkids.com/

A Maths Dictionary for Kids
Version 2.0

by Jenny Eather

Making Cookie Shares

Students work in pairs to find and draw all the ways to make the equivalent of one yellow pattern block using blue rhombus' (thirds), green triangles (sixths), and red trapezoids (halves). As students finish they are asked to write number sentences next to the hexagon to show the fractions they used to make one whole. See the example above.

Tierney, C. Investigations in Number, Data, and Space: Fair Shares. Dale Seymour Publications, 1998.

Game

Can You Guess?

You will need:

3 players

Deck of cards (face cards removed or number cards 1—10)

How to play:

Player A deals stacks of cards face down (one stack to each player) to Players B and C. Players B and C take the top card and, without looking, hold it numeral side out, on their foreheads.

Player A looks at the two cards and tells the product of the two numbers. Players B and C look at each others cards and try to guess the number on their forehead. If you guess the number correctly you get to keep the card.

Example: Player B has 5 showing and Player C has 3 showing. Player A says, "the product of these two numbers is 15".