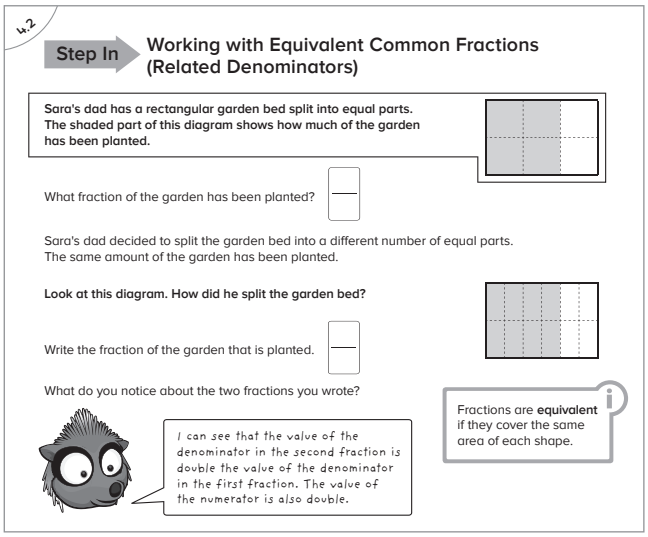
ORIGO STEPPING STONES TEXAS

Core Focus

- Reviewing common fractions and mixed numbers (number line model, equivalent fractions with related and different denominators, and converting between mixed numbers and improper fractions)
- Order of operations (focus on use of parentheses)

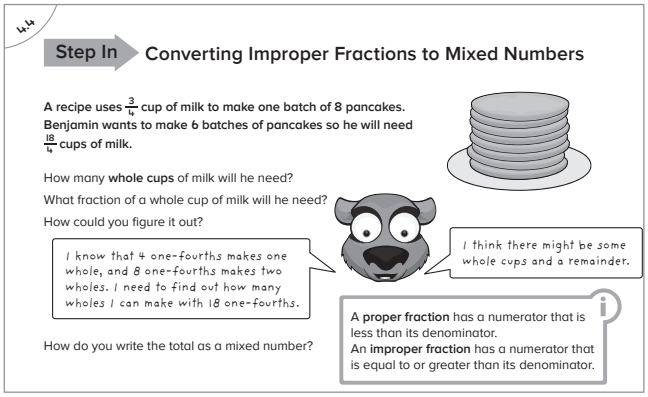
Adding Common Fractions

- Students rewrite fractions so they have the same denominator. This is particularly important when they add, subtract, or compare fractions. To figure out a "common" denominator, students think about multiples of both denominators.



In this lesson, students use area models to help add fractions with different but related denominators.

- Students rewrite **improper fractions** as **mixed numbers**, and mixed numbers as improper fractions.



In this lesson, students think about how many unit fractions (fractions with a numerator of 1) are needed to make one whole to convert between improper fractions and mixed numbers.

Ideas for Home

- Cooking provides an opportunity to talk about and use equivalent fractions. If a recipe requires $1\frac{1}{2}$ cups of flour, ask your child about different ways to measure it. They might suggest using a 1-cup measure and half-cup measure, or as $\frac{3}{2}$ using a half-cup measure 3 times.
- Fractions are part of meal time, too. Say, "The pizza is cut into eighths, what fraction would you like?" Or, "How can I give one-half to your brother and one-fourth to you? How many slices would that be? How do you know?"

Glossary

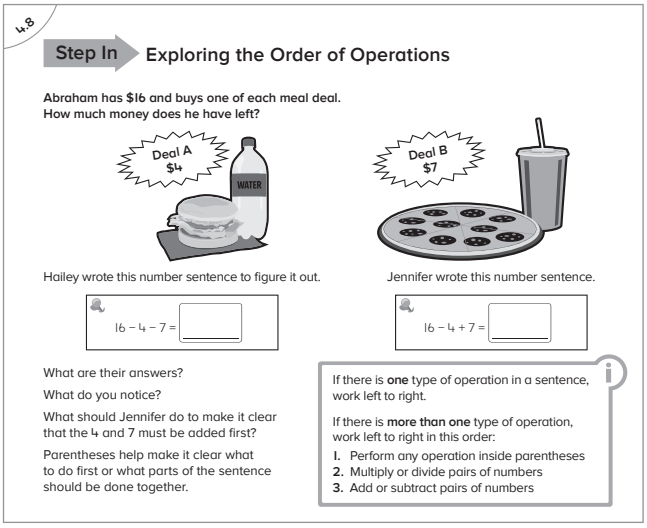
- Fractions where the top number (numerator) is larger than the bottom number (denominator), such as $\frac{8}{3}$, are always greater than one, and are known as **improper fractions**.
- **Mixed numbers** have a whole number plus a fraction. $2\frac{2}{3}$ is an example of a mixed number that is equivalent to the improper fraction $\frac{8}{3}$.

100915

ORIGO STEPPING STONES TEXAS

Order of Operations

- Students learn to write and evaluate mathematical expressions written horizontally, such as 5 × 3 + 2 = 17. Students connect the expressions to real-world situations such as, "We bought five sandwiches for $3 each, and one bag of chips that cost $2. How much did we spend in all?"
- Students learn that without context it is not always possible to know what steps to follow without some conventions for working with operations and using parentheses.
- Students learn that the order of numbers is not important for addition or multiplication but will change the answer for equations involving subtraction and division.
- Students learn that parentheses can be used to clarify which operation to do first, and that sometimes this can make a big difference.
- Students learn that without parentheses there is an order that should be followed for using operations in an equation.



In this lesson, students learn how parentheses can help indicate the order in which operations should be completed.

Ideas for Home

- Remove the picture cards from a deck of cards, give your child three of the remaining cards and ask them to write an expression that is as close to 25 as possible (over or under). E.g. with the numbers 3, 5, and 7, a possible expression is 3 × 5 + 7 = 22. They can use any combination of the four operations: addition, subtraction, multiplication, and division.
- Create different stories with your child that can be represented with an expression. An expression to match the story, "I read for 25 minutes three times this week, then I read for 40 minutes one day" is 3 × 25 + 40.

Glossary

- If there is one type of operation in a sentence, work left to right. If there are two or more types of operation, work left to right in this order:

  1. perform any operation inside parentheses
  2. multiply or divide pairs of numbers
  3. add or subtract pairs of numbers.

- An **expression** is a combination of numbers and operations that do not show a relationship, e.g. 5 × 8, or 40 + 3.

100915