UVU *School of* **EDUCATION**
UTAH VALLEY UNIVERSITY

UVU
CREATIVE
LEARNING
STUDIO ::
SCHOOL OF EDUCATION

Sharing Cookies

The Doorbell Rang
by Pat Hutchins
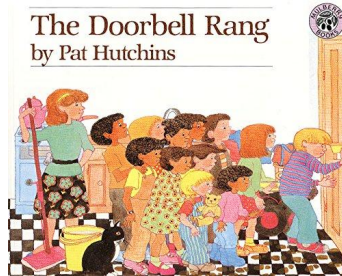
Task

If 8 children shared 12 cookies, how many cookies would each person get? You must use all of the cookies, without any leftovers.

Standards and Learning Targets

Standard 4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Learning Target: Interpreting a remainder as a fraction

Lesson Outline

Anticipate Strategies: Before you begin this lesson, be sure to anticipate the strategies your students might use to divide using the [Picture Book Problem Monitoring Chart](). For example, students might deal with the cookies and partition the remaining cookies or use a known fact and then partition the remaining cookies.

Launch: Read aloud The Doorbell Rang by Pat Hutchins. As you read the story, discuss how many cookies the children will share as more children come.

Then propose the following problem: In the story, the children were always able to share the cookies evenly. What if 8 children shared 12 cookies, how many cookies would each person get? You must use all of the cookies, without any leftovers.
Use numbers or pictures to explain your thinking.

Sharing Cookies Recording Sheet
Explore: Students work independently or in pairs to figure out how many cookies each person will get. Provide students with access to circles they can partition or cut. As students work, use the monitoring chart to identify strategies students are using as they solve the problems to help facilitate the discussion. Purposefully select students to share how they solved the problem based on your goals for the lesson.
Summarize: Once students have completed the problem, purposefully select students to share how they found the quotient. As students share their thinking, facilitate a discussion that connects the strategies students used to your goal for the lesson, interpreting the remainder as a fraction.
Extension Ideas: Use the same problem/context with different numbers to practice interpreting remainders as fractions.

Thank you for using one of our Picture Book Tasks! We would love to know more about your students' strategies when solving the problem, ideas you had for improving the task, and other math problems you and your students noticed or wondered about after reading the book.

Please complete our Picture Book Task Survey so that we can learn more about your experience teaching, how students solve problems, and improve our Picture Book Task Bank.