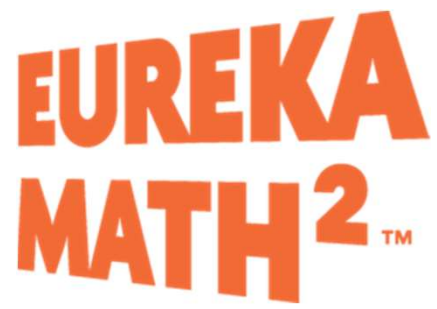


Lesson

1



Lesson 1:

Interpret a fraction as division.

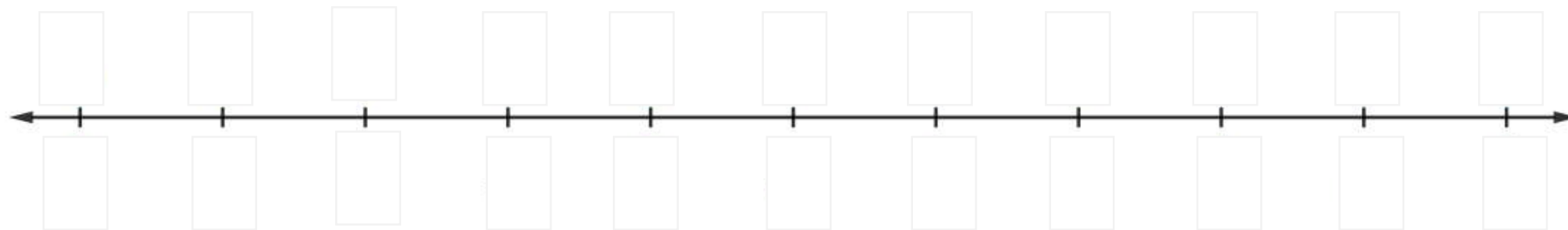
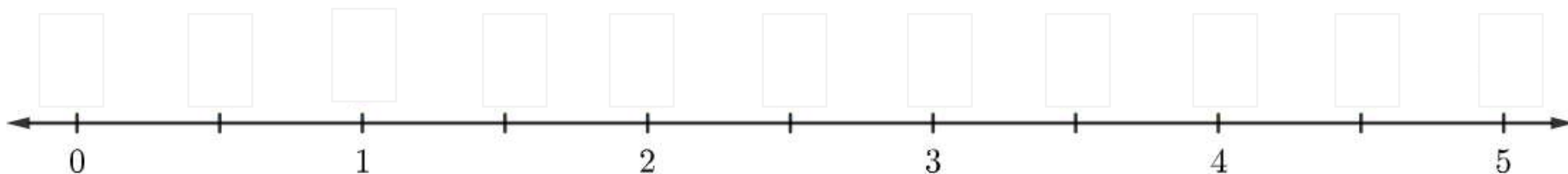
CCSS Standard – 5.NF.B.3

FLUENCY (10-min)

Counting on the Number Line by Halves

What **FRACTIONAL UNIT** does the number line show? Raise your hand when you know.

Halves



Notice:

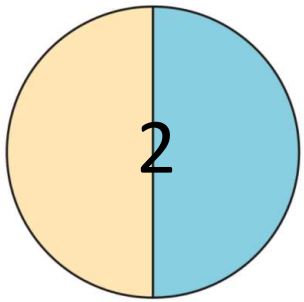
Whole numbers and fractional units.

FLUENCY (10-min)

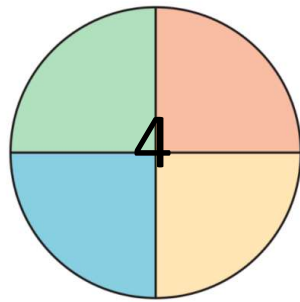
Choral Response: Equal Parts

How many **EQUAL PARTS** is the model portioned into?

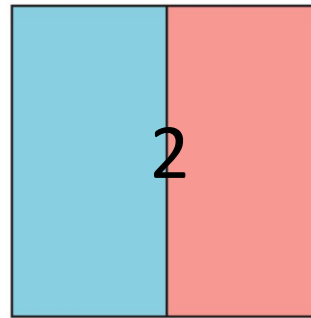
What **FRACTIONAL UNIT** does the model show?



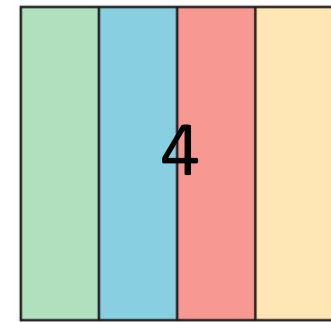
Halves



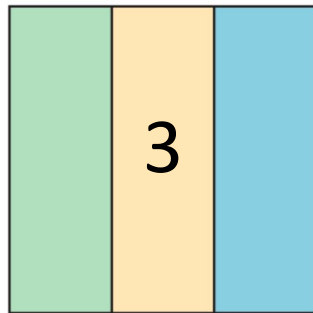
Fourths



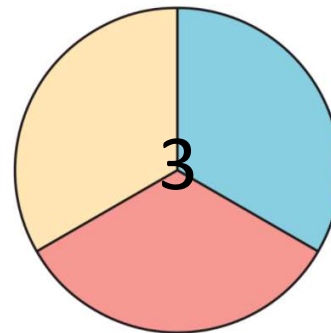
Halves



Fourths



Thirds



Thirds

FLUENCY (10-min)**Whiteboard Exchange: Add Fractions**

Write and complete the equation.

When possible, rename the sum as a **WHOLE** number.

$$\frac{1}{3} + \frac{1}{3} = \underline{\hspace{2cm}}$$

$$\frac{1}{4} + \frac{2}{4} = \underline{\hspace{2cm}}$$

$$\frac{2}{5} + \frac{2}{5} = \underline{\hspace{2cm}}$$

$$\frac{4}{6} + \frac{2}{6} = \underline{\hspace{2cm}}$$

$$\frac{5}{8} + \frac{4}{8} = \underline{\hspace{2cm}}$$

1 $\frac{1}{8}$

$$\frac{3}{10} + \frac{9}{10} = \underline{\hspace{2cm}}$$

1 $\frac{2}{10}$

$$\frac{7}{12} + \frac{5}{12} = \underline{\hspace{2cm}}$$

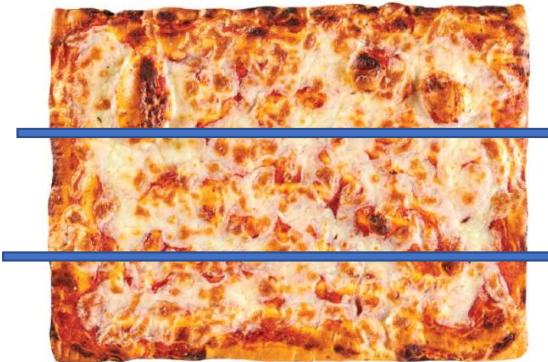
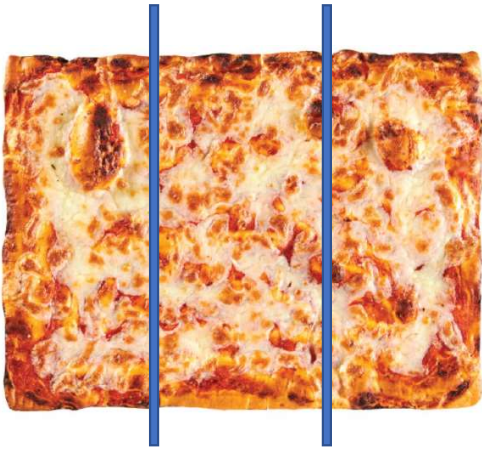
$$\frac{60}{100} + \frac{80}{100} = \underline{\hspace{2cm}}$$

1 $\frac{40}{100}$

LAUNCH (5-min)

Pizza Slices

This video will show friends equally sharing a pizza.

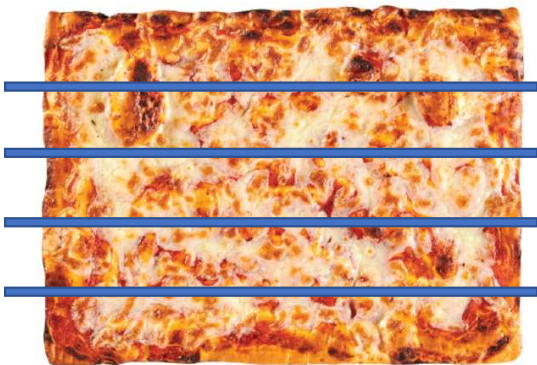
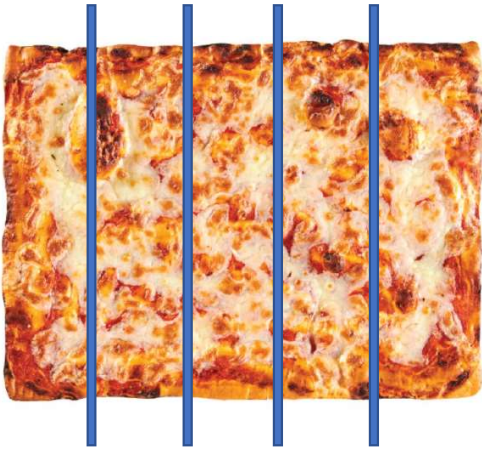


A video player interface for a video titled "PIZZA PROBLEM". The video frame shows the title in large, bold, black letters with a play button icon overlaid. Below the video frame is a progress bar showing 1:17. At the bottom of the player, there are two buttons: "Play Part 1" (highlighted with a red border) and "Play Part 2".

LAUNCH (5-min)

Pizza Slices

This video will show friends equally sharing a pizza.

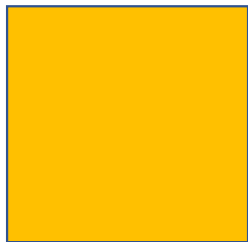


A video player interface for a video titled "PIZZA PROBLEM". The video frame shows the title in large, bold, black letters with a play button icon overlaid. Below the video frame is a progress bar showing 1:17. At the bottom of the player are two buttons: "Play Part 1" and "Play Part 2", with the latter highlighted by a red box. The player also includes standard controls like volume, settings, and full screen.

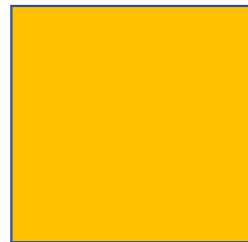
LEARN (35-min)

Model Equal Sharing Concretely

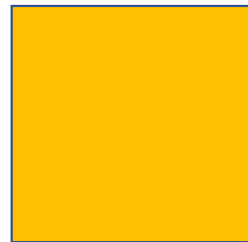
Suppose 4 friends want to share 4 waffles equally.
How many waffles does each friend get?



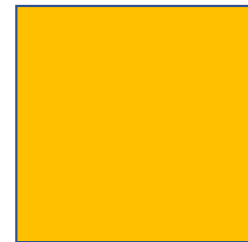
Friend 1



Friend 2



Friend 3



Friend 4

Dividend Divisor Quotient

$$4 \div 4 = 1$$

What does the dividend represent here? **The number of waffles that are equally shared.**

What does the divisor represent here? **The number of friends.**

What does the quotient represent here? **The number of waffles each friend gets.**

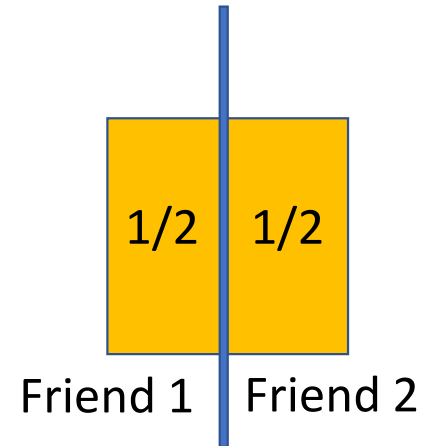
LEARN (35-min)

Model Equal Sharing Concretely

Now suppose there are 2 friends who want to share 1 waffle equally.
What fraction of a waffle does each friend get?

Quotient Dividend Divisor

$$\frac{1}{2} = 1 \div 2$$



Starting with the quotient, what division equation can we write to represent sharing 1 waffle equally among 2 friends?

What does the quotient represent here? $\frac{1}{2}$ represents the number of waffles each friend gets.

What does the dividend represent here? 1 represents the number of waffles that are shared equally.

What does the divisor represent here? The number of friends.

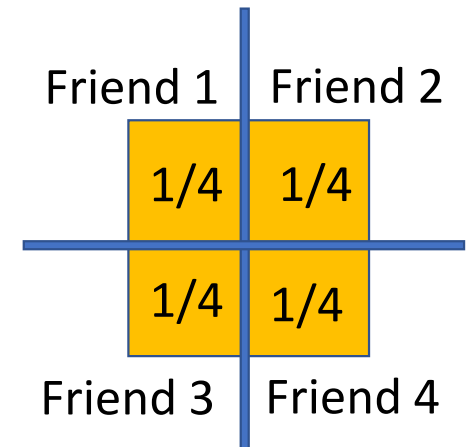
LEARN (35-min)

Model Equal Sharing Concretely

Now suppose 4 friends want to share 1 waffle equally.
What fraction of a waffle does each friend get?

Dividend Divisor Quotient

$$1 \div 4 = \frac{1}{4}$$



Starting with the **dividend**, what division equation can we write to represent sharing 1 waffle equally among 4 friends?

What does the dividend represent here? **1 represents the number of waffles that are shared equally.**

What does the divisor represent here? **The number of friends.**

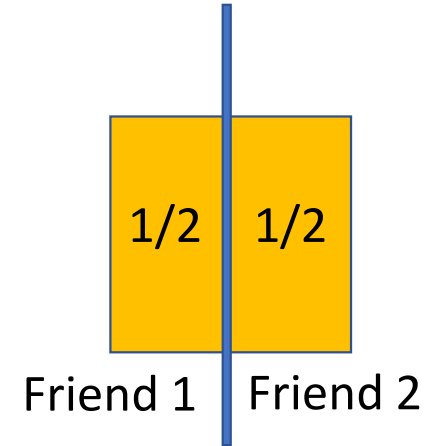
What does the quotient represent here? **1/4 represents the number of waffles each friend gets.**

LEARN (35-min)

Model Equal Sharing Concretely

Notice how the numerator and the dividend are the same number.

$$\frac{1}{2} = 1 \div 2$$

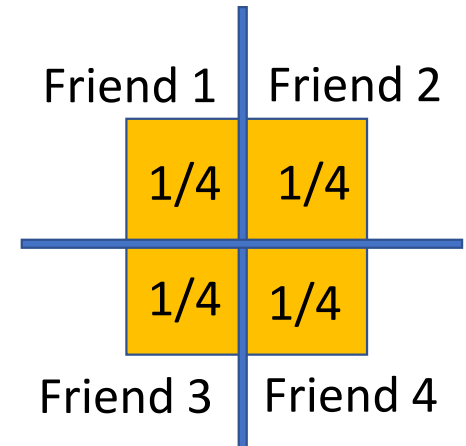


Notice how the denominator and the divisor are the same number.

What do you notice about the size of the quotient in these two problems?

The quotient is less in this problem, 4 people each get a smaller part of the waffle.

$$1 \div 4 = \frac{1}{4}$$

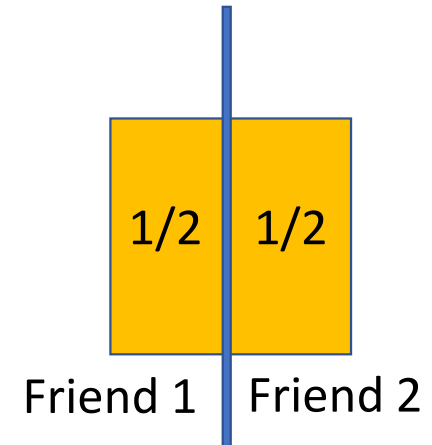


LEARN (35-min)

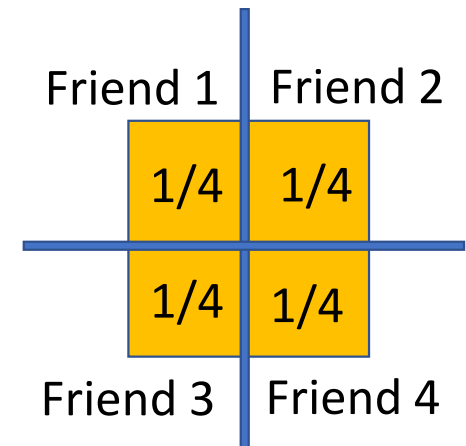
Model Equal Sharing Concretely

It is important for you to begin to see every fraction as a division equation.

$1/2$ is the same thing as.... $2 \overline{) 1}$



$1/4$ is the same thing as.... $4 \overline{) 1}$

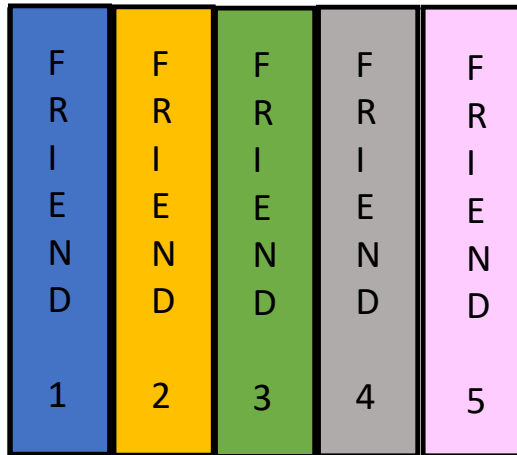


LEARN (35-min)

Model Equal Sharing Pictorially

LEARN BOOK PAGE: 5

1. Complete the model to represent 1 waffle shared equally among 5 friends.



If the square represents one waffle, how can we **partition** the square to show how much each of the 5 friends gets?

Each friend gets $\frac{1}{5}$ of the waffle.
What is the **division equation** we can write to represent this situation?

$$1 \div 5 = \frac{1}{5}$$

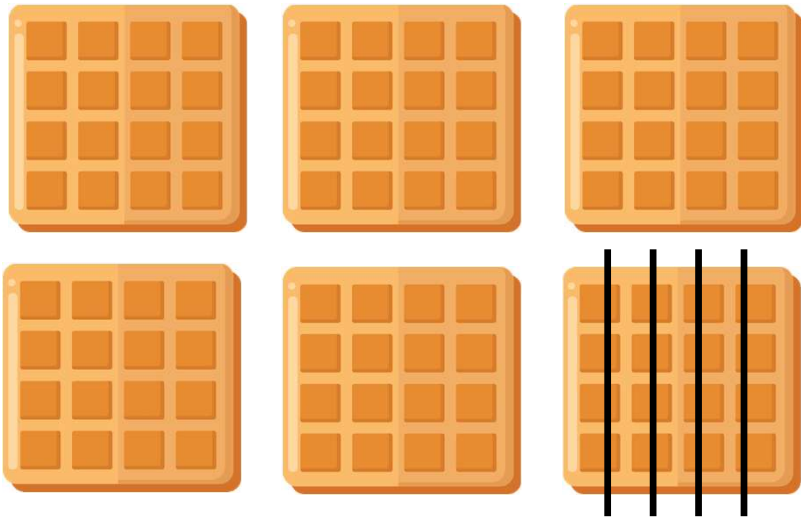
$$\frac{1}{5} = 1 \div 5$$

LEARN (35-min)

Model Equal Sharing Pictorially

Imagine now that the 5 friends each want more than 1 waffle.

At least how many waffles would there need to be for each friend to have **more than 1**?



There would need to be at least 6 waffles.

Each friend would get 1 full waffle AND $\frac{1}{5}$ of the 6th waffle.
So, each friend would get $1 \frac{1}{5}$ waffles.

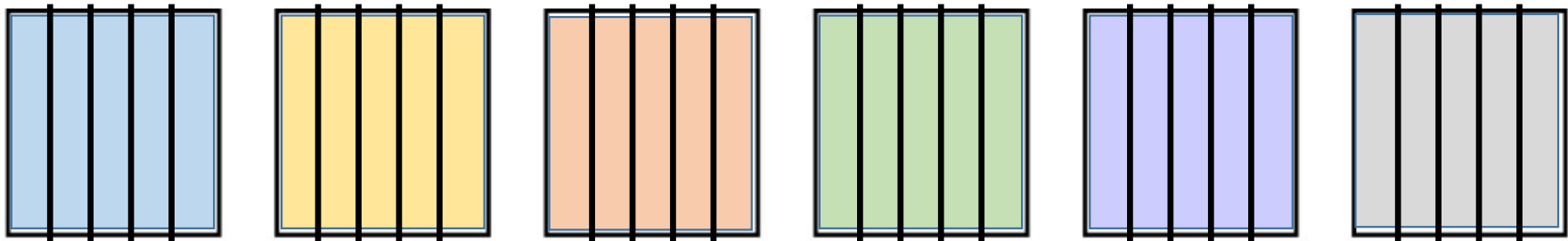
$$6 \div 5 = 6/5 \text{ or } 1 \frac{1}{5}$$

LEARN (35-min)

Model Equal Sharing Pictorially

LEARN BOOK: PAGE 5

6 waffles are shared equally by 5 people. Each waffle is a different flavor, and each person wants to try every flavor. Use the model to find how many waffles each friend gets. Express your answer as a fraction.



$$6 \div 5 = 6/5 \text{ or } 1 \frac{1}{5}$$

LEARN (35-min)

Model Equal Sharing Pictorially

LEARN BOOK: PAGE 5

Ryan and Jada want to share 5 granola bars equally.

The granola bars are each a different flavor:

strawberry, blueberry, peanut butter, apple cinnamon,

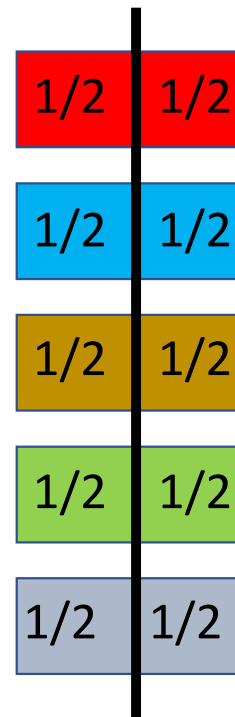
or chocolate chip.

If each friend wants to try each of the flavors,

how many granola bars does each friend get?

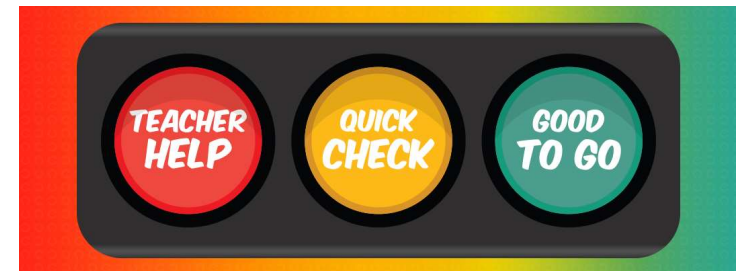
Express the answer as a fraction.

$$5 \div 2 = 5/2 \text{ or } 2 \frac{1}{2}$$



LAND (10-min)

Exit Ticket



Exit Ticket – PAGE 13

Small Group Time:
Problem Set Page 7

Homework:
Page 9 APPLY BOOK

EUREKA MATH[™] 5 • M2 • TA • Lesson 1

Name _____ Date _____

 **1**

1. Draw a model to show the quotient. Then complete the equation.

$2 \div 3$