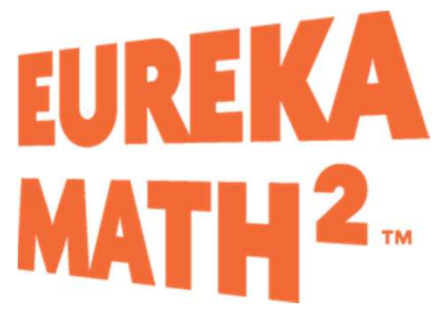


Lesson

3



Lesson 3:

Represent fractions as division by using models.

CCSS Standard – 5.NF.B.3

FLUENCY (10-min)**Choral Response: Convert Metric Units**

1 liter is equal to how many milliliters? Raise your hand when you know.

1 meter is equal to how many millimeters?

1 gram is equal to how many milligrams?

$1 \text{ L} = \underline{\quad\quad\quad} \text{ mL}$

$2 \text{ L} = \underline{\quad\quad\quad} \text{ mL}$

$2 \text{ L } 649 \text{ mL} = \underline{\quad\quad\quad} \text{ mL}$

$1 \text{ m} = \underline{\quad\quad\quad} \text{ mm}$

$3 \text{ m} = \underline{\quad\quad\quad} \text{ mm}$

$3 \text{ m } 580 \text{ mm} = \underline{\quad\quad\quad} \text{ mm}$

$1 \text{ g} = \underline{\quad\quad\quad} \text{ mg}$

$4 \text{ g} = \underline{\quad\quad\quad} \text{ mg}$

$4 \text{ g } 72 \text{ mg} = \underline{\quad\quad\quad} \text{ mg}$

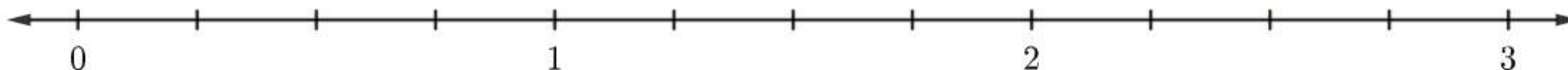
FLUENCY (10-min)

Counting on the Numbers Line

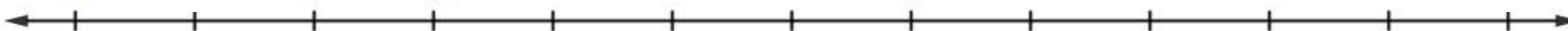
What **FRACTIONAL UNIT** does the number line show? **Raise your hand when you know.**

Fourths

Use the number line to count forward by fourths.



Now count forward by fourths again. This time rename the fractions as **whole numbers** when possible.



Now count forward by fourths again. This time rename the fractions as **whole numbers and mixed numbers** when possible.

Notice: Whole numbers and fractional units.

FLUENCY (10-min)

Whiteboard Exchange: Subtract Fractions



Write and complete the equation.

When possible, rewrite the difference as a whole number.

$$\frac{2}{3} - \frac{1}{3} = \underline{\quad}$$

$$\frac{3}{4} - \frac{2}{4} = \underline{\quad}$$

$$\frac{5}{5} - \frac{3}{5} = \underline{\quad}$$

$$\frac{7}{6} - \frac{2}{6} = \underline{\quad}$$

$$\frac{10}{8} - \frac{4}{8} = \underline{\quad}$$

$$\frac{12}{10} - \frac{2}{10} = \underline{\quad} = \underline{\quad}$$

$$\frac{15}{12} - \frac{7}{12} = \underline{\quad}$$

$$\frac{130}{100} - \frac{30}{100} = \underline{\quad} = \underline{\quad}$$

LAUNCH (5-min)

Students reason about different models used to represent a word problem.

8 treats are shared equally by 3 dogs.
How many treats does each dog get?

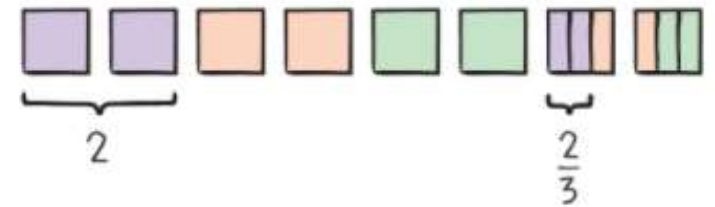
THINK-PAIR-SHARE:

Look at the student's work to solve this word problem.
What do you notice about Ryan's and Kelly's work?

Some things to notice:

- Both models found $8 \div 3$.
- Ryan drew each treat separately, while Kelly drew a tape diagram to represent all treats together.
- Ryan's way shows how to use a model to solve the problem.
- Kelly's way shows how to use a model to make sense of the problem.

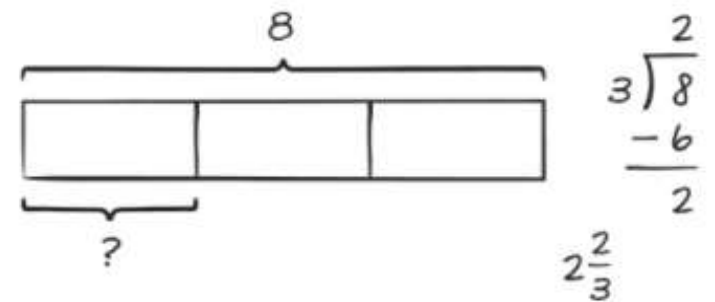
Ryan's Way:



$$8 \div 3 = 2\frac{2}{3}$$

Each dog gets $2\frac{2}{3}$ treats.

Kelly's Way:



Each dog gets $2\frac{2}{3}$ treats.

LEARN (35-min)

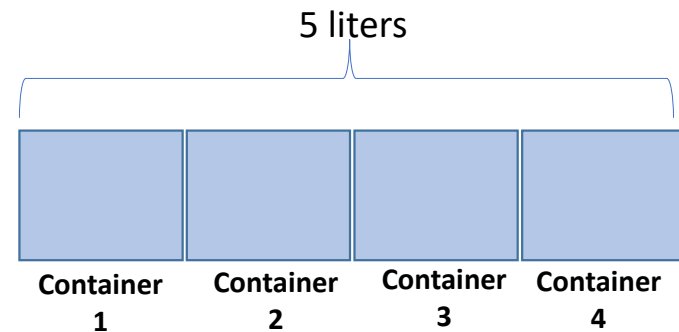
Represent a Word Problem with a Quotient Between 1 and 2 by using a Tape Diagram

LEARN BOOK – PAGE 23

Miss Song pours 5 liters of water equally into 4 containers. How many liters of water are in 1 container?

Turn & Talk: Can we draw something? What can we draw?

What do we know so far? 5 liters of water needs to be shared equally into 4 containers.



What division equation can we write to solve this problem?

$$5 \div 4 = 5/4 \text{ or } 1 \frac{1}{4}$$

Given this equation, does each container have more than 1 liter or less than 1 liter of water?

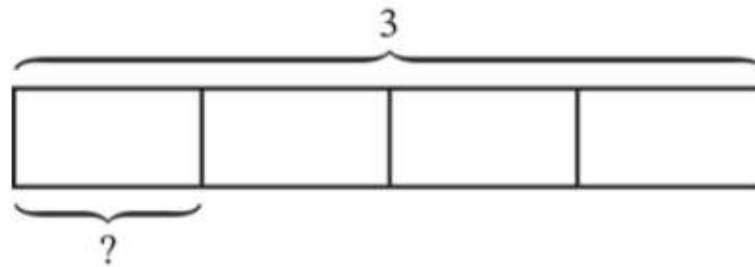
Does it make sense to express our answer as $5/4$ or $1 \frac{1}{4}$? Why?

LEARN (35-min)

Represent a Word Problem with a Quotient Less Than 1 by using a Tape Diagram

LEARN BOOK – PAGE 23

Mr. Perez pours 3 liters of water equally into 4 containers. How many liters of water are in 1 container?



What division equation can we write to solve this problem?

$$3 \div 4 = \frac{3}{4}$$

Does it make sense that the quotient is less than 1 liter? Why?

LEARN (35-min)

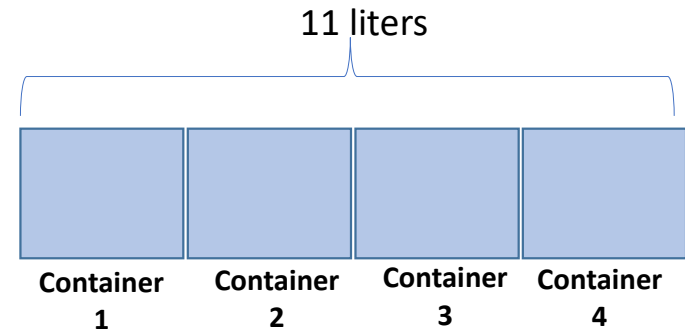
Represent a Word Problem with a Quotient Greater Than 2 by using a Tape Diagram

LEARN BOOK – PAGE 24

Mr. Evans pours 11 liters of water equally into 4 containers. How many liters of water are in 1 container?

Turn & Talk: Can we draw something? What can we draw?

What do we know so far? **11 liters of water needs to be shared equally into 4 containers.**



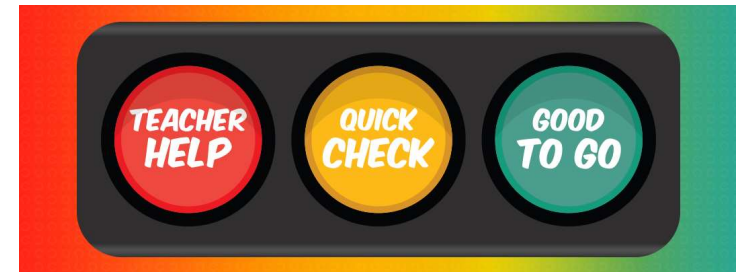
What division equation can we write to solve this problem?

$$11 \div 4 = 11/4 \text{ or } 2 \frac{3}{4}$$

Does it make sense that the quotient is greater than 1 liter? Why?

LAND (10-min)

Exit Ticket



Name

Date



3

Noah has 15 meters of rope. He cuts it into 8 equal-size pieces to make jump ropes. How long is each jump rope?

Exit Ticket – PAGE 29

Small Group Time:

Problem Set Pages 25 - 26

Homework:

Page 21 APPLY BOOK