Module 3 - Lesson 13:

Divide a nonzero whole number by a unit fraction to find the size of the group.

CCSS Standard – 5.NF.B.7.b / 5.NF.B.7.c

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

How many twos are in 8?

What is 8 ÷ 2?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

How many threes are in 24?

What is 24 ÷ 3?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

16 is 4 groups of what?

What is 16 ÷ 4?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

40 is 5 groups of what?

What is 40 ÷ 5?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

How many sixes are in 36?

What is 36 ÷ 6?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

56 is 7 groups of what?

What is 56 ÷ 7?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

What division expression represents this question?

How many eights are in 72?

What is 72 ÷ 8?

FLUENCY (10-min) **Choral Response: Divide Whole Numbers**

Raise your hand when you know the answer.
Wait for my signal to say the answer.

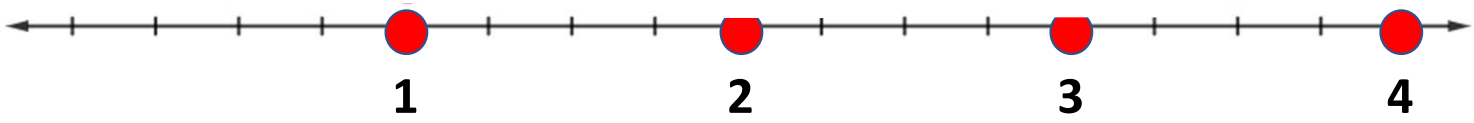
What division expression represents this question?

81 is 9 groups of what?

What is 81 ÷ 9?

FLUENCY (10-min) **Choral Response: Fractions Equal to Whole Numbers**

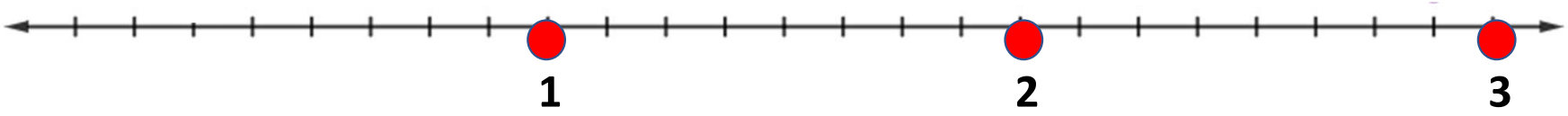
Use the number line to count forward by fourths from 0 fourths to 16 fourths.
The first number you say is 0 fourths. Ready?



Where are the WHOLE numbers located on the number line?

FLUENCY (10-min) **Choral Response: Fractions Equal to Whole Numbers**

Use the number line to count forward by eighths from 0 fourths to 24 eighths.
The first number you say is 0 eighths. Ready?



Where are the WHOLE numbers located on the number line?

FLUENCY (10-min) **Whiteboard Exchange: Multiply a Whole Number by a Fraction**

Write and complete the equation.

$\frac{1}{2} \times 6 =$ _____

$\frac{2}{2} \times 8 =$ _____

$\frac{2}{3} \times 15 =$ _____

$\frac{3}{4} \times 3 =$ _____

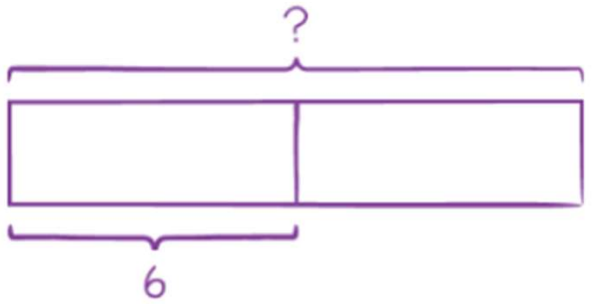
$\frac{2}{5} \times 4 =$ _____

$\frac{5}{6} \times 4 =$ _____

LAUNCH (5-min) **Model and solve an unknown factor problem.**

Show me a tape diagram that represents this question.

$$6 \text{ is } \frac{1}{2} \text{ of what number?}$$



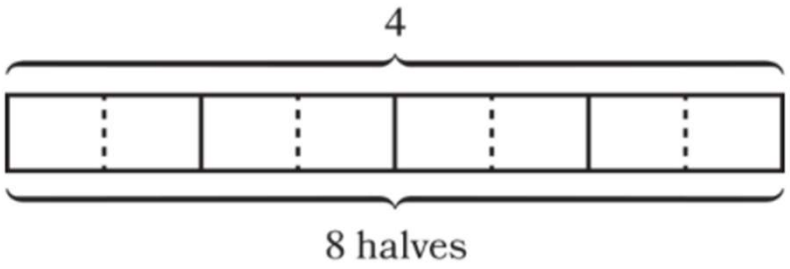
We know 6 is half of 12. What equation can we write to represent the original question?

We know the value of 1 unit in the tape diagram is 6, so 2 units make 12.

$$6 \div \frac{1}{2} = 12$$

LEARN (35-min) **Interpret a Division Expression**

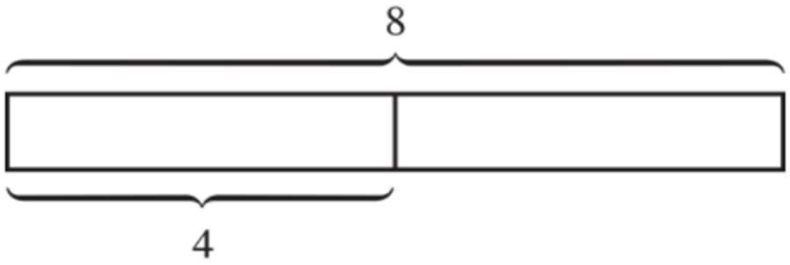
What division equation can we write to represent this tape diagram?



$$4 \div \frac{1}{2} = 8$$

Because 8 halves are in 4.

What multiplication equation can we write to represent this tape diagram?



$$8 \times \frac{1}{2} = 4$$

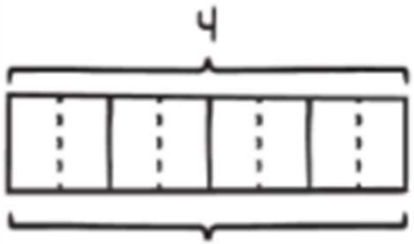
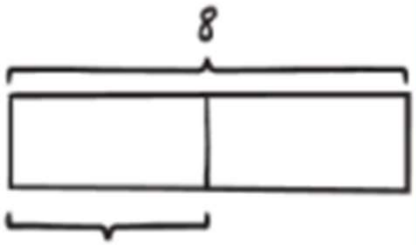
Because there are 8 groups of 1/2.

Dividend Divisor Quotient

$4 \div \frac{1}{2} = 8$

$8 \times \frac{1}{2} = 4$

$\frac{1}{2} \times 8 = 4$

Divisor is the size of the group.	Divisor is the number of groups.
	
8 halves	4
How many halves are in 4?	4 is $\frac{1}{2}$ of what?
$4 \div \frac{1}{2} = 8$	$4 \div \frac{1}{2} = 8$
Group Size Number of Groups	Number of Groups Group Size
$8 \times \frac{1}{2} = 4$	$\frac{1}{2} \times 8 = 4$

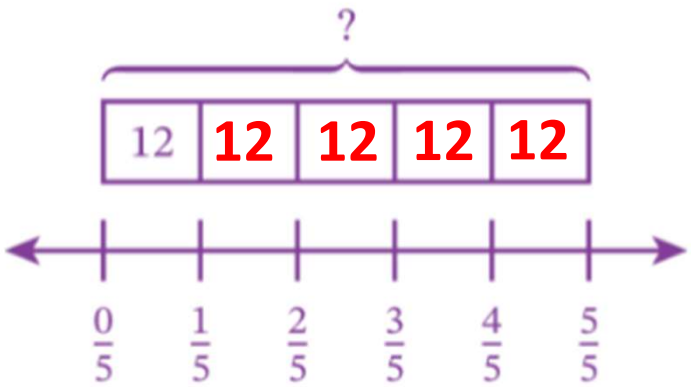
LEARN (35-min) **Use a Tape Diagram and a Number Line to Divide**

LEARN book page 115.

Use the Read–Draw–Write process to solve each problem.

1. Lacy reads 12 pages of a book. This is $\frac{1}{5}$ of the number of pages in the book. How many pages are in Lacy's book?

$$12 \div \frac{1}{5} = 60$$

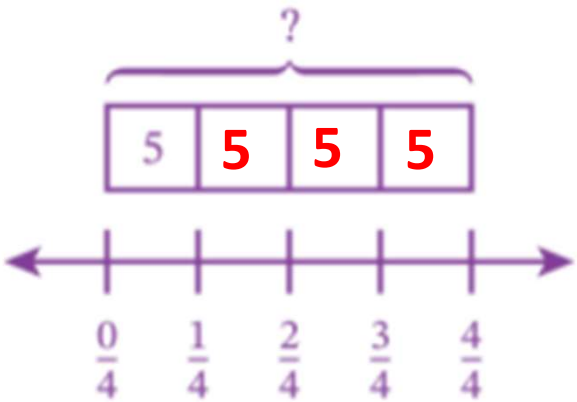


Lacy's book has 60 pages.

LEARN (35-min) **Use a Tape Diagram and a Number Line to Divide**

LEARN book page 115.

2. Tyler has 5 lemons. This is $\frac{1}{4}$ of the number of lemons he needs to make a pitcher of lemonade. How many lemons does Tyler need to make a pitcher of lemonade?



$$5 \div \frac{1}{4} = 20$$

Tyler needs 20 lemons to make a pitcher of lemonade.

LEARN (35-min) Use a Tape Diagram and a Number Line to Divide

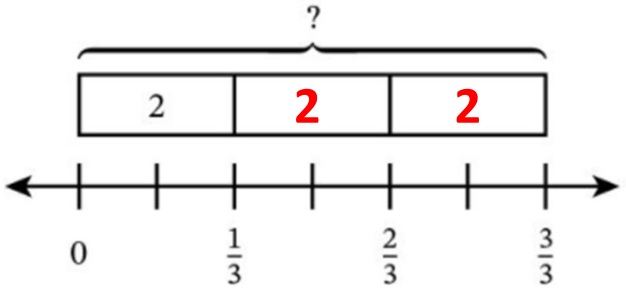
LEARN book page 117.

Use the model to help you complete each statement and divide.

1. 2 is $\frac{1}{3}$ of what number?

   $2 \div \frac{1}{3} =$ 6

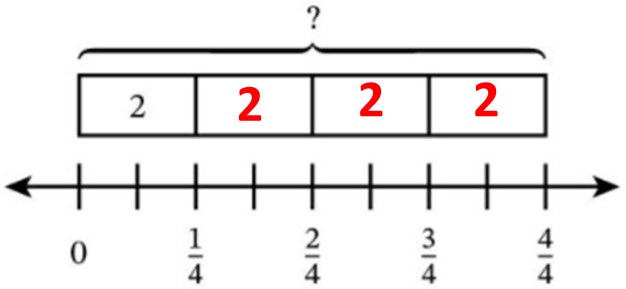
   $\frac{1}{3}$ of 6 is 2.



2. 2 is $\frac{1}{4}$ of what number?

   $2 \div \frac{1}{4} =$ 8

   $\frac{1}{4}$ of 8 is 2.



LAND (10-min) **Exit Ticket**

13

Use the Read–Draw–Write process to solve the problem.

Each package holds 6 slices of cheese. This is $\frac{1}{5}$ of the number of slices Lacy needs for her party.
How many slices of cheese does Lacy need for her party?

Exit Ticket – PAGE 121

Small Group Time:
Problem Set Pages 117 – 119

Homework:
Page 83 APPLY BOOK