NAME   DATE   PERIOD
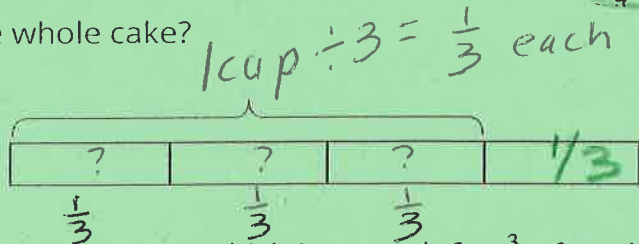
Unit 4, Lesson 8: How Much in Each Group? (Part 1)
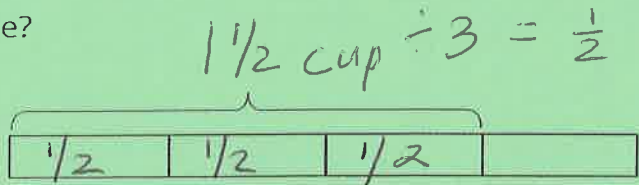
1. For each scenario, use the given tape diagram to help you answer the question. Mark up and label the diagrams as needed.

   Has   _fraction of cake_

   a. Mai has picked 1 cup of strawberries for a cake, which is enough for $\frac{3}{4}$ of the cake. How many cups does she need for the whole cake?

   $1 cup \div 3 = \frac{1}{3}$ each

   needs another $\frac{1}{3}$ so 1⅓

?	?	?	1/3

   $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$

   b. Priya has picked $1\frac{1}{2}$ cups of raspberries, which is enough for $\frac{3}{4}$ of a cake. How many cups does she need for the whole cake?

   $1\frac{1}{2} cup \div 3 = \frac{1}{2}$ each

   needs another $\frac{1}{2}$ so 2½/2

½	½	1/2	

2. Tyler painted $\frac{9}{2}$ square yards of wall area with 3 gallons of paint. How many gallons of paint does it take to paint each square yard of wall?
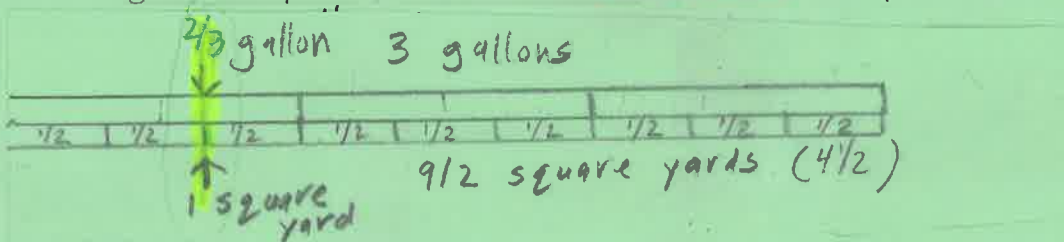
   $4½$

   a. Write multiplication and division equations to represent the situation.

   $x \Rightarrow \frac{9}{2} \times ? = 3$ $\div \rightarrow 3 \div \frac{9}{2} = ?$ .66⁻

   b. Draw a diagram to represent the situation and to answer the question.

   $\frac{2}{3}$

   Drew carefully

   $\frac{2}{3}$ gallon   3 gallons

½	½	½	½	½	½	½	½	½

   1 square yard   9/2 square yards (4½)   /2

3. After walking $\frac{1}{4}$ mile from home, Han is $\frac{1}{3}$ of his way to school. What is the distance between his home and school?   _see next page_ ☺

   a. Write multiplication and division equations to represent this situation.

   $\frac{1}{3} \times ? = \frac{1}{4}$ $\frac{1}{4} \times 3$ $\frac{1}{4} \div \frac{1}{3} =$

   b. Use the given diagram to help you answer the question. Mark up and label it as needed.

   next page

Unit 4: Dividing Fractions   Lesson 8: How Much in Each Group? (Part 1)

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Thursday 1/24

NAME   DATE   PERIOD

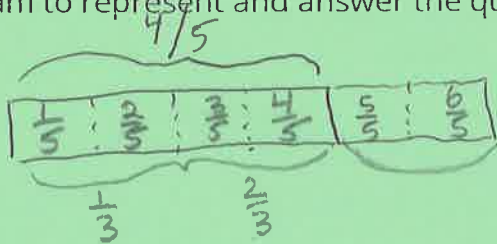$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ Total $\frac{3}{4}$ /2

?   whole

4. Here is a division equation: $\frac{4}{5} \div \frac{2}{3} = ?$

    a. Write a multiplication equation that corresponds to the division equation.

$$\frac{2}{3} \times ? = \frac{4}{5}$$

    b. Draw a diagram to represent and answer the question.

4/5

$\frac{1}{5}$: $\frac{2}{5}$: $\frac{3}{5}$: $\frac{4}{5}$ | $\frac{5}{5}$: $\frac{6}{5}$

$\frac{1}{3}$ $\frac{2}{3}$

① Think $\frac{2}{3}$ of what is $\frac{4}{5}$

② Need "another" $\frac{1}{3}$ so answer is $\frac{6}{5}$.

/2

(from Unit 4, Lesson 7)

5. A set of books that are each 1.5 inches wide are being organized on a bookshelf that is 36 inches wide. How many books can fit on the shelf?

    a. Write a multiplication equation and a division equation to represent this question.

$36 \div \frac{3}{2} =$

$1.5 \times x = 36$ inches $36 \div 1\frac{1}{2} = \boxed{24}$ or

    b. Find the answer. Draw a diagram, if needed.   c. Use the multiplication equation to check your answer.

$$1.5 \times 24 = \boxed{36} \; \smile$$

(from Unit 4, Lesson 3)   /3

6.   a. Without calculating, order the expressions based on their values, from smallest to largest.

    $56 \div 8$ $56 \div 8{,}000{,}000$ $56 \div 0.000008$

    middle   smallest   largest

dividing by a larger number results in a smaller quotient.

/3

/14   6