

NAME _____

DATE _____

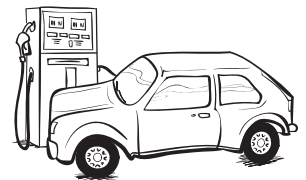
Home Connection 32 ★ Activity

Estimation Interviews

Estimate the answer to each problem below (or solve it in your head) and explain your thinking. Then ask an adult to do the same. Record his or her responses on your sheet.

Signature of the adult I interviewed for this assignment:

1 The Carpenter family's car can drive 24 miles on the freeway using 1 gallon of gas. The car's tank holds 20 gallons of gas. If they fill up at a gas station outside of town and stay on the freeway, how far can they drive before the tank is empty?



Our estimates (or mental solutions) and explanations:

Student: _____

Adult: _____

2 The family stops for lunch at the Sandwich Station. They buy 4 sandwiches for \$3.49 each, 2 salads to share for \$1.49 each, and 4 yogurt smoothies for \$2.59 each. If these prices include sales tax, what is their total?



Our estimates (or mental solutions) and explanations:

Student: _____

Adult: _____

(Continued on back.)

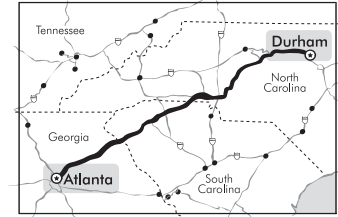
Home Connection 32 Activity (cont.)

3 If the Carpenters are driving at 55 miles per hour, about how long will it take them to get from Atlanta, Georgia, to Durham, North Carolina, a distance of 384 miles?

Our estimates (or mental solutions) and explanations:

Student: _____

Adult: _____



4 When do people use estimation in their daily lives? What are some situations in which it's just as good (or better) to make an estimate than to find the exact answer? Ask the adult with whom you're working to help you think of at least 4 different examples.

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Home Connection 33 ★ Worksheet

More Multiplication Menus

Use mental strategies instead of a calculator to solve the problems on this page and the next.

1a Write the answers to the combinations in the left column. Then use the information to help solve the combinations in the right column.

$1 \times 14 = \underline{\quad}$

$3 \times 14 = \underline{\quad}$

$2 \times 14 = \underline{\quad}$

$5 \times 14 = \underline{\quad}$

$10 \times 14 = \underline{\quad}$

$30 \times 14 = \underline{\quad}$

$20 \times 14 = \underline{\quad}$

$15 \times 14 = \underline{\quad}$

b Use the information above to solve the problem below. Use numbers and words to explain how you got your answer.

$25 \times 14 = \underline{\quad}$

2a Write the answers to the combinations in the left column. Then use the information to help solve the combinations in the right column.

$1 \times 23 = \underline{\quad}$

$3 \times 23 = \underline{\quad}$

$2 \times 23 = \underline{\quad}$

$5 \times 23 = \underline{\quad}$

$10 \times 23 = \underline{\quad}$

$30 \times 23 = \underline{\quad}$

$20 \times 23 = \underline{\quad}$

$15 \times 23 = \underline{\quad}$

b Use the information above to solve the problem below. Use numbers and words to explain how you got your answer.

$24 \times 23 = \underline{\quad}$

(Continued on back.)

Home Connection 33 Worksheet (cont.)

3a Write the answers to the combinations in the left column. Then use the information to help solve the combinations in the right column.

$1 \times 32 = \underline{\quad}$

$3 \times 32 = \underline{\quad}$

$2 \times 32 = \underline{\quad}$

$5 \times 32 = \underline{\quad}$

$10 \times 32 = \underline{\quad}$

$30 \times 32 = \underline{\quad}$

$20 \times 32 = \underline{\quad}$

$15 \times 32 = \underline{\quad}$

b List 4 combinations you can solve using the information above. Then find the answer to each of your own problems and explain your thinking. Be creative! You can make your combinations as hard as you want, as long as you can solve them accurately and show your thinking.

Combination	Explanation
example: $12 \times 32 = 384$	$10 \times 32 = 320$ 320 $2 \times 32 = 64$ $\frac{+64}{384}$

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Home Connection 34 ★ Worksheet



NOTE TO FAMILIES

We have been practicing long division at school over the past week or so. First we used sketches to help, and now we are practicing using a numerical method that probably looks somewhat similar to the way you learned to do long division. Look at the comparison below, and then talk to your child as he or she completes this assignment. You might enjoy solving some of the problems yourself with this new way. If so, your child can help you.

A Familiar Way	A New, Similar Way
$ \begin{array}{r} 37 \\ 13 \overline{)481} \\ \underline{-391} \\ 91 \\ \underline{-91} \\ 0 \end{array} $	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> $\begin{array}{r} 2 \\ 5 \\ 10 \\ 20 \\ \hline 37 \end{array}$ </div> <div style="margin-right: 20px;"> $\begin{array}{r} 13 \overline{)481} \\ \underline{-260} \\ 221 \\ \underline{-130} \\ 91 \\ \underline{-65} \\ 26 \\ \underline{-26} \\ 0 \end{array}$ </div> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p style="text-align: center;">× Menu for 13</p> <p>$10 \times 13 = 130$</p> <p>$20 \times 13 = 260$</p> <p>$5 \times 13 = 65$</p> </div> </div>

Multiplication & Division Practice

Solve the following division problems. For each one, complete a multiplication menu first. Then you can solve the problem using only numbers, or you can use sketches and numbers together. The first one is done for you as an example.

example

$10 + 5 + 1 = 16$
so, $240 \div 15 = 16$

$$\begin{array}{r}
 1 \\
 5 \\
 10 \\
 \hline
 16
 \end{array}$$

$$\begin{array}{r}
 15 \overline{)240} \\
 \underline{-150} \\
 90 \\
 \underline{-75} \\
 15 \\
 \underline{-15} \\
 0
 \end{array}$$

× Menu for 15

$10 \times 15 = 150$

$20 \times 15 = 300$

$5 \times 15 = 75$

(Continued on back.)

Home Connection 34 Worksheet (cont.)

1

$$16 \overline{)272}$$

× Menu for 16

$10 \times 16 =$

$20 \times 16 =$

$5 \times 16 =$

2

$$12 \overline{)216}$$

× Menu for 12

$10 \times 12 =$

$20 \times 12 =$

$5 \times 12 =$

3

$$17 \overline{)408}$$

× Menu for 17

$10 \times 17 =$

$20 \times 17 =$

$5 \times 17 =$

4

$$22 \overline{)330}$$

× Menu for 22

$10 \times 22 =$

$20 \times 22 =$

$5 \times 22 =$

(Continued on next page.)

NAME _____

DATE _____

Home Connection 34 Worksheet (cont.)

5

$$26 \overline{)598}$$

× Menu for 26

$10 \times 26 =$

$20 \times 26 =$

$5 \times 26 =$

Use numbers, words, and/or labeled sketches to solve the story problems below. Do not use a calculator.

6 Josh and his dad are baking chocolate chip cookies for his boy scout troop's jamboree. There will be 98 people at the event and Josh wants everyone to be able to eat 2 cookies.

a How many cookies will they need to bake?

b How many dozens of cookies will that be?



(Continued on back.)

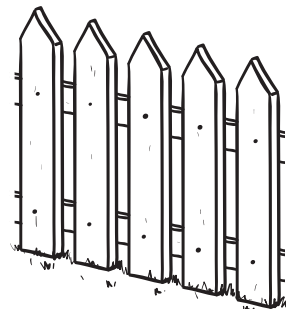
Home Connection 34 Worksheet (cont.)

7 Mr. Elliot wants to build a fence around a yard that is 50 feet wide and 100 feet long. The fencing he wants to use comes in ready-made sections that are 6 feet long. Each section costs \$26.

a How many feet of fencing does he need in all?

b How many fence sections does he need to buy?

c How much will it cost to build this fence?



(Continued on next page.)

Home Connection 34 Worksheet (cont.)**CHALLENGE****Divisibility Riddles**

8 Here are two number riddles. Use the clues to solve each riddle. Show all of your thinking and work below each riddle. If you need more space to work, attach an extra piece of paper to this assignment.

Riddle 1

My number is between 1 and 25

When you divide my number by 1, the remainder is 0.

When you divide my number by 2, the remainder is 1.

When you divide my number by 3, the remainder is 2.

When you divide my number by 4, the remainder is 1.

When you divide my number by 5, the remainder is 2.

When you divide my number by 6, the remainder is 5.

When you divide my number by 7, the remainder is 3.

My number is _____

Riddle 2

My number is between 1 and 50

When you divide my number by 1, the remainder is 0.

When you divide my number by 2, the remainder is 0.

When you divide my number by 3, the remainder is 1.

When you divide my number by 4, the remainder is 2.

When you divide my number by 5, the remainder is 1.

When you divide my number by 6, the remainder is 4.

When you divide my number by 7, the remainder is 4.

My number is _____

NAME _____

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Home Connection 35 ★ Worksheet

The Tangerine Problem

1 Estimate the results of $360 \div 24$ and explain your thinking.

2 Fill in the menu and then solve $360 \div 24$. You can make a sketch, or you can work with numbers only.

Multiplication
Menu

$1 \times 24 = \underline{\quad}$

$2 \times 24 = \underline{\quad}$

$10 \times 24 = \underline{\quad}$

$20 \times 24 = \underline{\quad}$

$5 \times 24 = \underline{\quad}$

Other useful
combinations:

3 Ali says that if you divide 360 by 12 instead of 24, the answer will be twice as large. Do you agree with her or not? Why?

(Continued on back.)

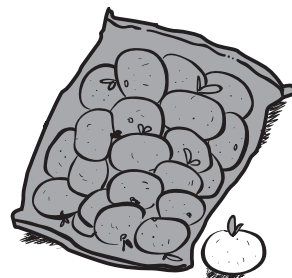
Home Connection 35 Worksheet (cont.)

4 Holly and her brother Max got permission to pick tangerines from the trees in their yard and sell them to their friends and neighbors. In all, they collected 360 tangerines.

Holly thinks they should put the tangerines in bags of 24 and sell each bag for \$1.50.

Max thinks they should divide the tangerines equally among 24 bags and sell each bag for \$1.50.

Whose plan is better? Why? Show all of your your work below.



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Home Connection 36 ★ Worksheet

Lady Liberty

1 Write the answers to the combinations in the left column. Then use the information to help solve the combinations in the right column without a calculator.

$1 \times 8 = \underline{\quad}$

$3 \times 8 = \underline{\quad}$

$2 \times 8 = \underline{\quad}$

$5 \times 8 = \underline{\quad}$

$10 \times 8 = \underline{\quad}$

$30 \times 8 = \underline{\quad}$

$20 \times 8 = \underline{\quad}$

$15 \times 8 = \underline{\quad}$

2 Use the information from the multiplication menu above to estimate the answer to $168 \div 8$. Explain your estimate and then solve the problem. You can use any strategy you want, including a sketch or just numbers.

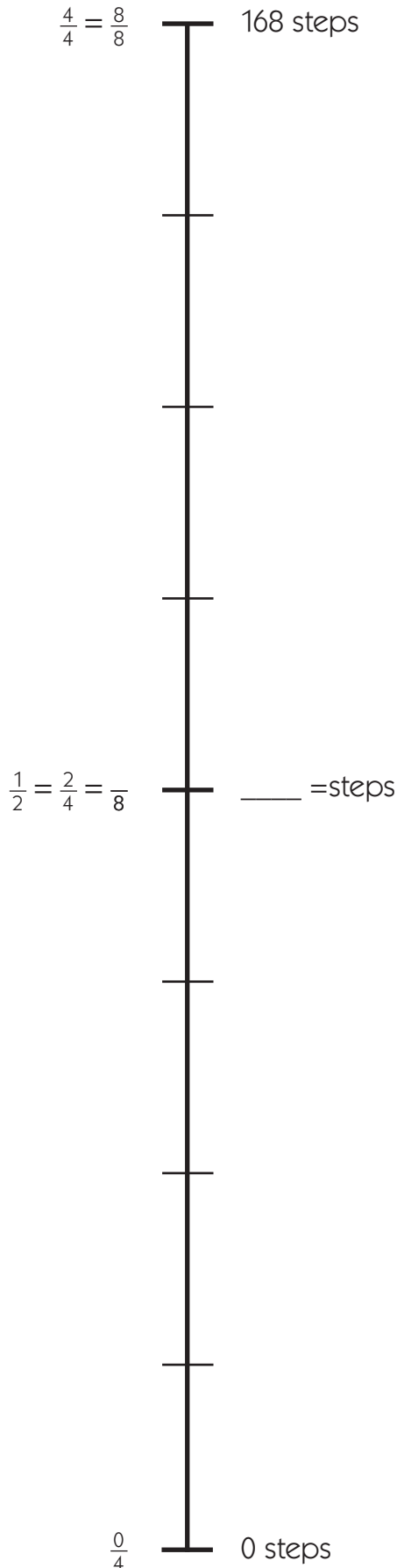
a Estimate for $168 \div 8$: _____

b Explanation of estimate:

c Solve the problem and show all of your work below.

(Continued on back.)

Home Connection 36 Worksheet (cont.)



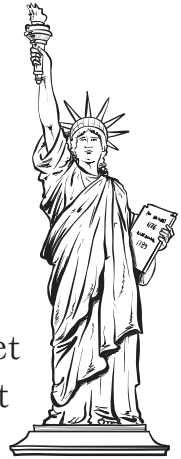
3 The Statue of Liberty was a gift to the United States from the people of France in 1884. It is a world known symbol of freedom, democracy, and international friendship.

Data:

Statue height, from feet to torch: 151 feet

Total height including pedestal: 305 feet

Number of steps inside the statue: 168



Today, people can tour a museum at the base of the statue and climb to the top of the pedestal. There they find a glass ceiling that allows them to look through the inside of the statue.

Imagine you were allowed to climb the steps inside the statue itself. (They go from the feet to the head, not up the arm.)

Label both sides of the number line on this page to show the trip up all those stairs divided into fourths and eighths. On the left side of the number line, show the fractions and on the right side show how many steps you must climb to reach those fractions. The mark at the halfway point has already been done except for the number of eighths and the number of steps. You're responsible for labeling the rest of the marks.

**CHALLENGE**

4 When you are done, go back and show where you would be at $\frac{1}{3}$ and $\frac{2}{3}$ of the way up the steps. Include the number of steps at each of those fractions.

NAME _____

DATE _____

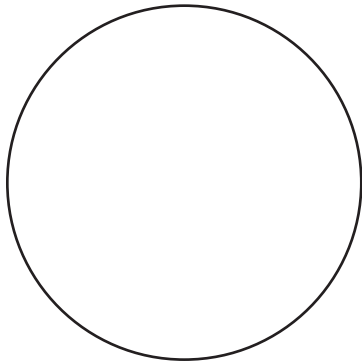
Home Connection 37 ★ Worksheet

Fraction & Division Story Problems

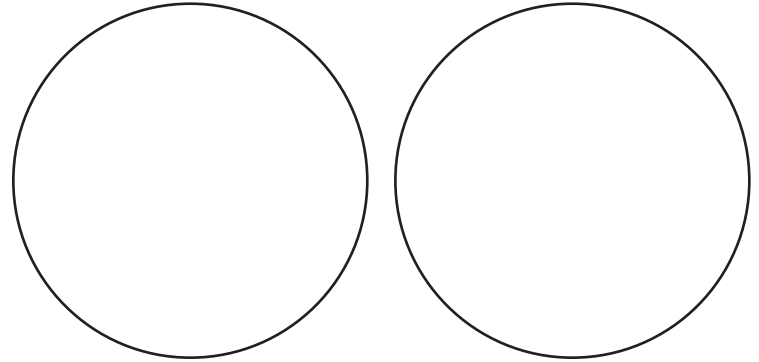
On Tuesday, David and three friends shared a large pizza for an after-school treat. Each of the four boys ate the same amount of pizza. On Thursday, David shared two large pizzas with 7 friends from his soccer team. Each of the eight team members got equal amounts.

1 Use the circles below to draw labeled models showing how much pizza David got to eat on both days.

a Tuesday's Pizza Shares



b Thursday's Pizza Shares



2 What fraction of a large pizza did David eat on Tuesday? _____

3 What fraction of a large pizza did David eat on Thursday? _____

4 Did David eat more pizza on Tuesday or on Thursday? _____

5 Write at least 3 mathematical observations that you can make from your sketches for this situation.



(Continued on back.)

Home Connection 37 Worksheet (cont.)

6 Write a story problem to match each of the equations below:

a $37 \div 4 = 9 \text{ R}1$

b $37 \div 4 = 9 \frac{1}{4}$

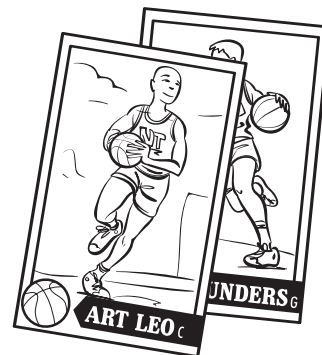
c $\$37.00 \div 4 = \9.25

d $40 \div 4 = 10$



CHALLENGE

7 LaToya had a large collection of basketball cards. She decided to give half of them to her friend, Erin, and a fourth of them to her brother. She still has 150 cards left. How many cards did she start with?



NAME _____

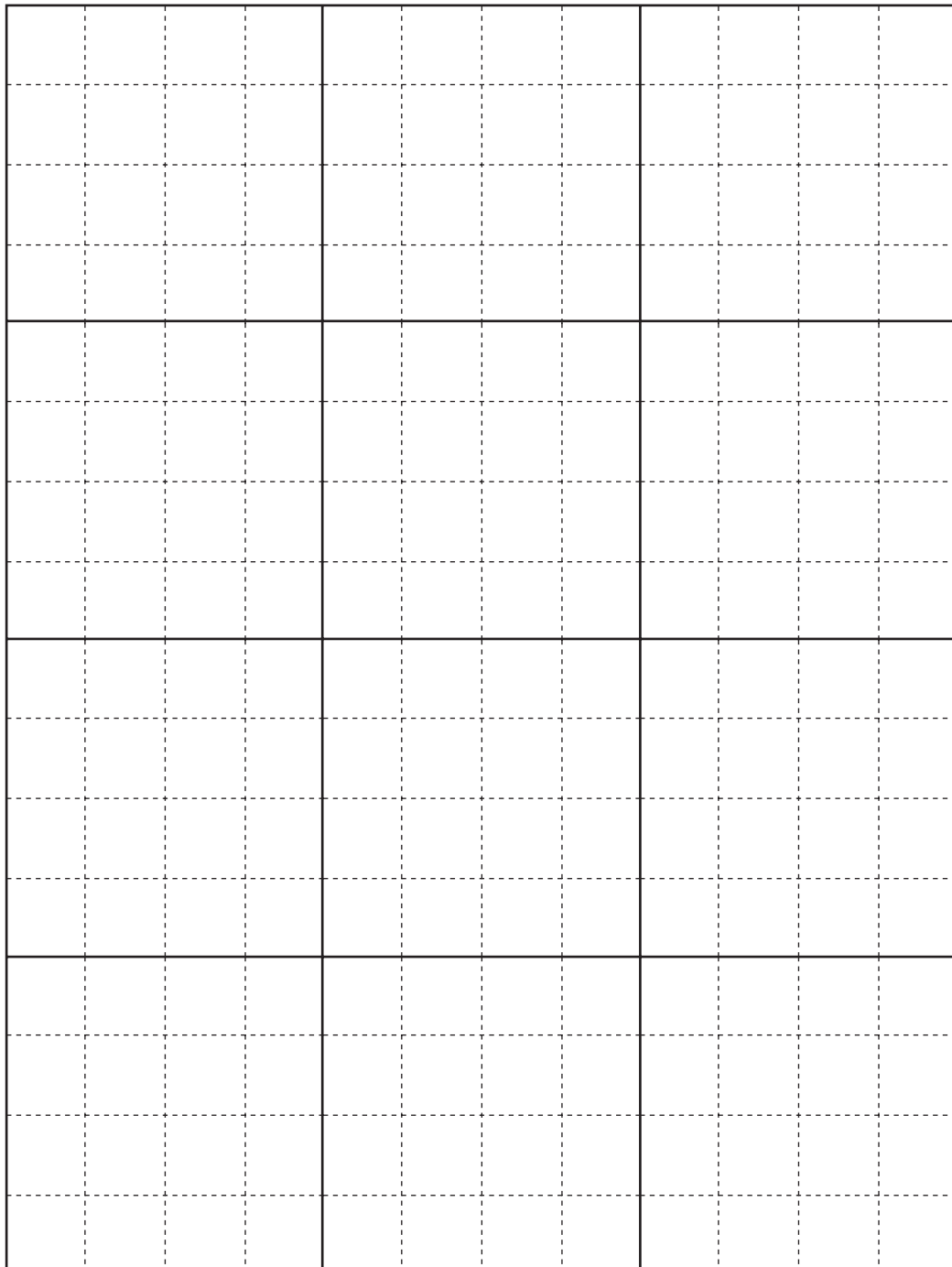
DATE _____

Home Connection 38 ★ Worksheet

The Mini-Quilt Project

1 Choose one of the quilt blocks you designed on page 123 or 124 in your Bridges Student Book. Use your colored pencils to copy the block 12 times on the grid below.

2 Give your Mini-Quilt a title: _____



Home Connection 38 Worksheet (cont.)

3 Write at least 3 different mathematical observations about your Mini-Quilt.

4 Each of the small squares measures 1 centimeter by 1 centimeter. What is the area of the entire mini-quilt in square centimeters? Do this problem without a calculator and show your work below.

5 If the entire quilt is assigned an area of 1, what fraction of the quilt is covered by each of the colors you used? Show your thinking.

(Continued on next page.)

NAME _____

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Home Connection 38 Worksheet (cont.)**CHALLENGE**

6 Give your quilt block a title that relates to American history. Then write a short explanation or story about what your quilt block title means. To help come up with ideas, think about what you have studied in American history class, and remember the book *Eight Hands Round, A Patchwork Alphabet*. It might help to talk about your ideas with someone at home first and then do the writing.

a Title _____

b Write your story below and on the back of this page. (You can type it if you prefer.)

NAME _____

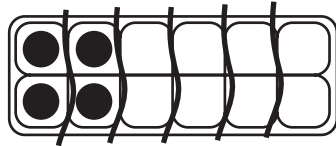
DATE _____

Home Connection 39 ★ Worksheet

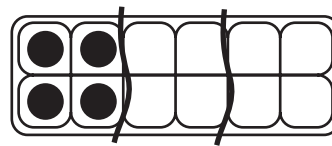
Egg Carton Fractions & More

1 In each problem below, there are 2 identical pictures. Label each with a different fraction name and draw in yarn lines to show your thinking. In all problems, one egg carton is always worth 1.

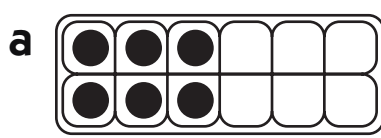
example

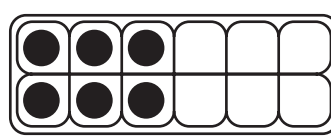


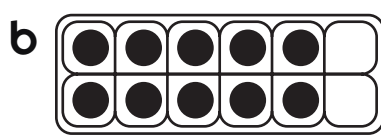
$$\frac{2}{6}$$

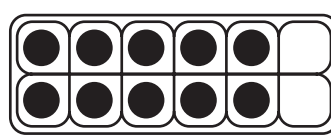


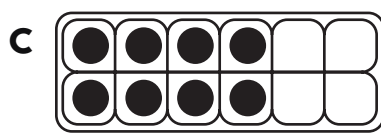
$$\frac{1}{3}$$

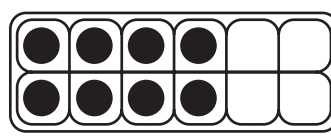


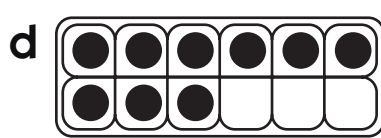


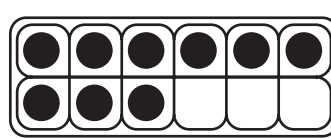














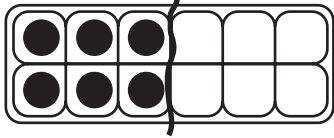
(Continued on back.)

Home Connection 39 Worksheet (cont.)

2 Show each fraction below on the egg carton, the clock, and the ruler.

example

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



Eggs in $\frac{1}{2}$
a carton 6



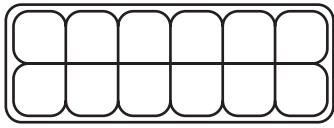
Minutes in $\frac{1}{2}$
an hour 30



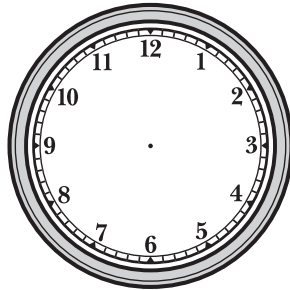
Inches in $\frac{1}{2}$
a foot 6

a

$$\frac{1}{4}$$



Eggs in $\frac{1}{4}$
a carton



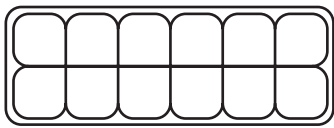
Minutes in $\frac{1}{4}$
an hour



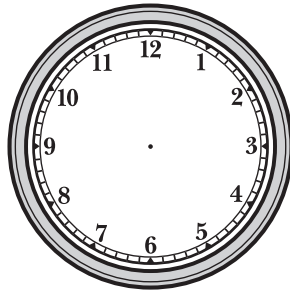
Inches in $\frac{1}{4}$
a foot

b

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



Eggs in $\frac{1}{3}$
a carton



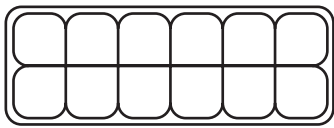
Minutes in $\frac{1}{3}$
an hour



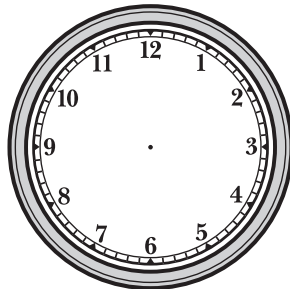
Inches in $\frac{1}{3}$
a foot

c

$$\frac{1}{6}$$



Eggs in $\frac{1}{6}$
a carton



Minutes in $\frac{1}{6}$
an hour



Inches in $\frac{1}{6}$
a foot

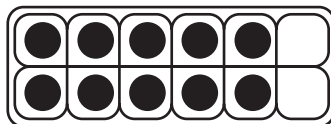
(Continued on next page.)

Home Connection 39 Worksheet (cont.)

3 List at least three things that a 12-egg carton, a clock, and a ruler have in common mathematically.

**CHALLENGE**

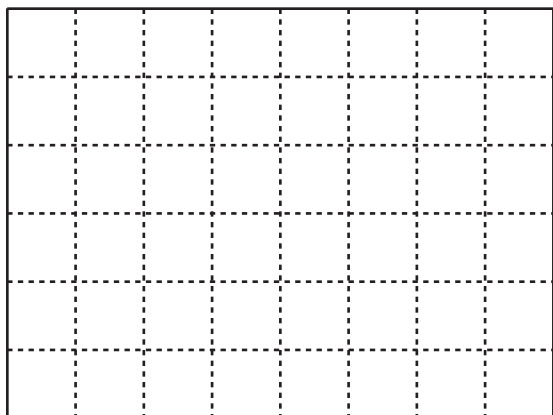
4 Ravi gave $2\frac{1}{3}$ (two and one-half thirds) as one fraction name for the part of a dozen shown here:



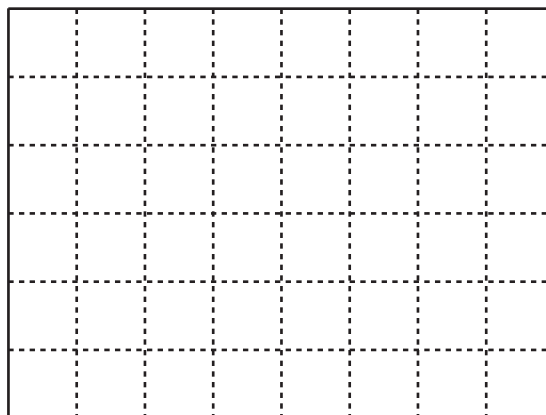
Explain how you think he decided this.

5 In a 12-egg carton, $\frac{1}{3}$ equals 4 eggs. Use the grids below to help you imagine and draw cartons where:

a $\frac{1}{3}$ is 7 eggs



b $\frac{2}{3}$ is 10 eggs

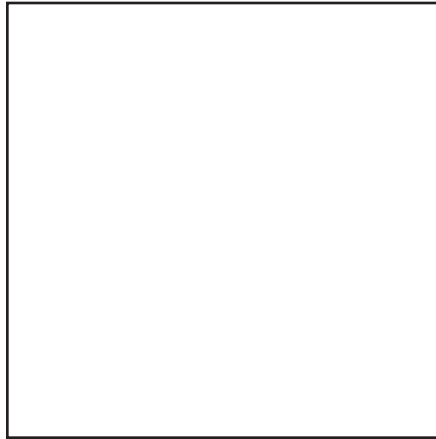


(Continued on back.)

Home Connection 39 Worksheet (cont.)

**CHALLENGE**

6 Use 4 straight lines to divide this square into 11 sections. The sections don't have to be congruent. (Hint: Use scratch paper to try out different ideas before you record your solution here.)



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Home Connection 40 ★ Worksheet

More Fraction Story Problems

1 When Annie went to get her hair cut she asked the stylist to cut her hair so that it stopped $\frac{1}{4}$ of an inch above her shoulders. When it was all over, her hair was 4 inches above her shoulders. Annie was shocked. If her hair grows $\frac{3}{4}$ of an inch per month, how many months will it take for Annie's hair to grow to the length she wanted?

Solve this problem by making a sketch in the first box and writing an equation (or more than one equation) in the second box.

It will take _____ months for Annie's hair to grow to the length she wanted.

(Continued on back.)

Home Connection 40 Worksheet (cont.)

- 2** Jamal's house is 40 miles from Loon Lake and 80 miles from Crescent City.
- a** Label the map below to show how far it is from Loon Lake to Crescent City.
- b** Label the map to show about where Jamal's house is.



- c** Explain how you knew where to put Jamal's house.



CHALLENGE

- 3** 16-year-old Marybeth has a regular after-school babysitting job. This is a record of the number of hours she worked last week:

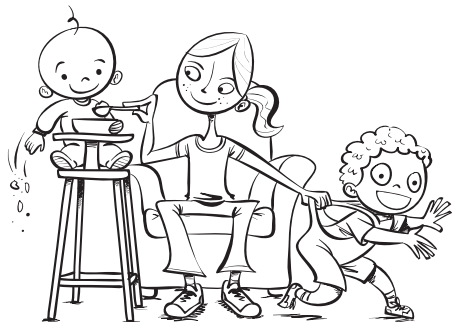
Monday $2\frac{1}{3}$ hours

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

Wednesday $2\frac{1}{4}$ hours

Thursday $3\frac{2}{3}$ hours

She gets paid \$6 per hour. How much money did Marybeth earn babysitting last week? (Show your work.)



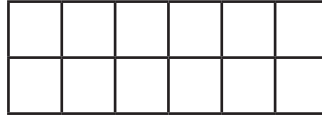
NAME _____

DATE _____

Home Connection 41 ★ Worksheet

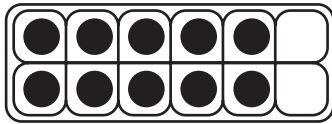
Unit Four Review

1 Draw and label a sketch to show $\frac{2}{3}$.

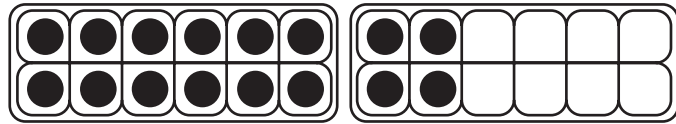


2 Write two different names for each collection of eggs below.

a



b

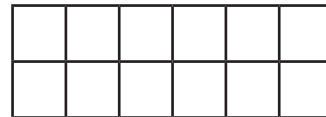
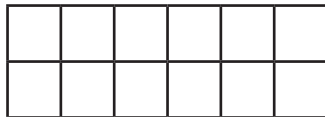


3a Circle the fraction that is greater.

$\frac{1}{4}$

$\frac{2}{6}$

b Make a labeled sketch to show your thinking.



4 Add each pair of fractions below. Use a labeled sketch to show your thinking for each one.

a $\frac{5}{8} + \frac{2}{8} =$

b $\frac{1}{6} + \frac{1}{3} =$

(Continued on back.)

Home Connection 41 Activity (cont.)

5 Find the difference between each pair of fractions below. Use a labeled sketch to show your thinking for each one.

a $\frac{4}{8} - \frac{1}{8} =$

b $\frac{2}{3} - \frac{1}{6} =$

6a Write the answers to the combinations in the left column. Then use the information to help solve the combinations in the right column.

$1 \times 22 =$ _____

$3 \times 22 =$ _____

$2 \times 22 =$ _____

$5 \times 22 =$ _____

$10 \times 22 =$ _____

$30 \times 22 =$ _____

$20 \times 22 =$ _____

$15 \times 22 =$ _____

b Solve the combination shown below. Use numbers and words to explain how you got your answer.

$28 \times 22 =$ _____

(Continued on next page.)

NAME _____

DATE _____

Home Connection 41 Activity (cont.)

7 Choose *one* division problem below and circle it. Pick the one that seems best for you—not too hard and not too easy.

$112 \div 8$

$156 \div 12$

$210 \div 14$

$572 \div 22$

- a** Estimate the answer to the problem you circled and explain your thinking.
- b** Use this space to solve the problem. Show all your work using labeled sketches, numbers, and/or words.

