

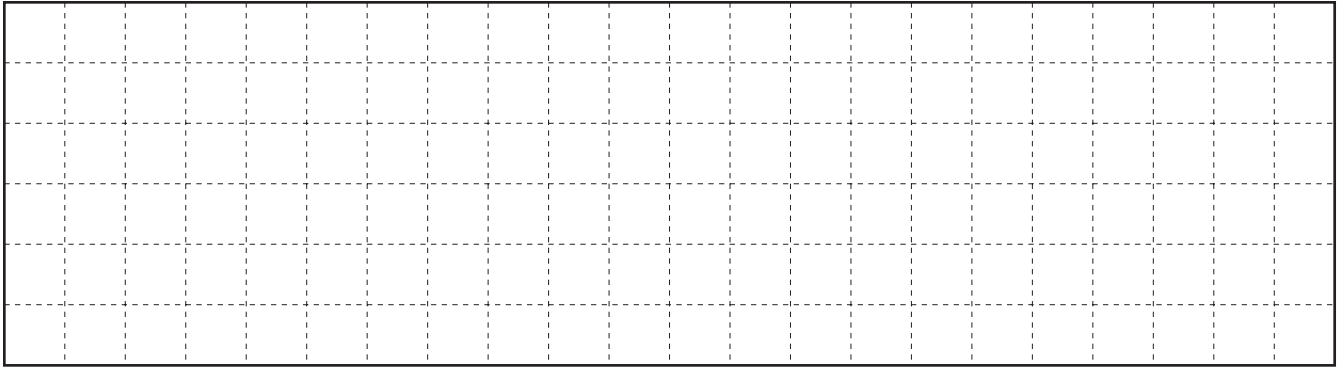
NAME _____

DATE _____

Home Connection 19 ★ Worksheet

Doubles & Halves

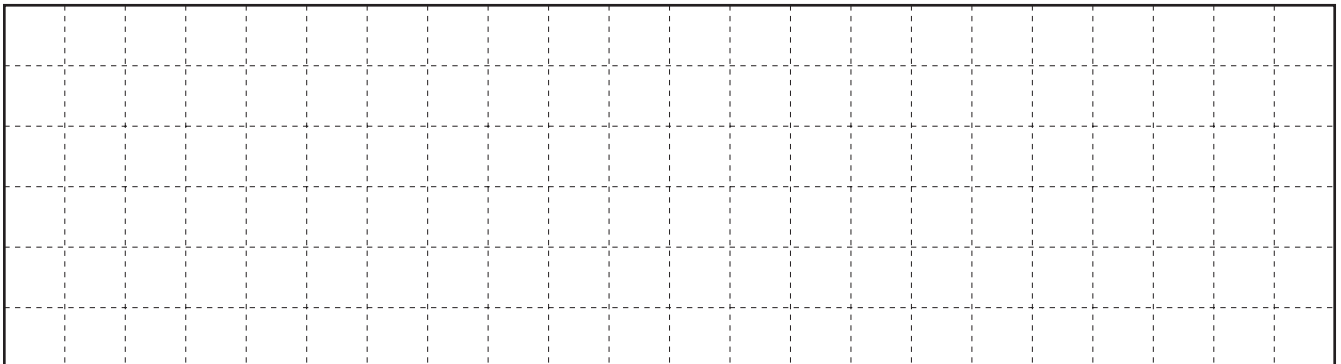
1 Draw rectangle A with dimensions of 4 by 8 on the grid below



2 The perimeter of rectangle A is _____. Please show your work below.

3 The area of rectangle A is _____. Please show your work below.

4 Draw rectangle B. Make one of the dimensions only half as long as the same dimension in rectangle A.



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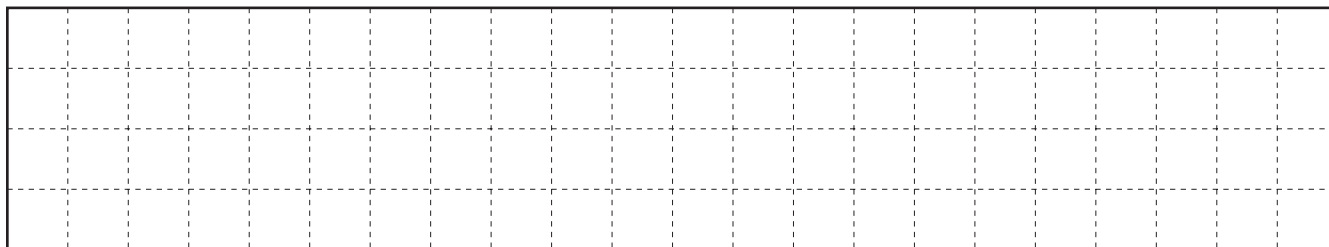
Home Connection 19 Worksheet (cont.)

5 How does the area of rectangle B compare to the area of rectangle A?

6 Why does this happen?

7 Imagine rectangle C where both dimensions are only half as long as the dimensions of rectangle A. How do you think the area of rectangle C would compare to the area of rectangle A?

8 Draw rectangle C on the grid below.



9 How does the area of rectangle C compare to the area of rectangle A?

10 Why does this happen?

(Continued on next page.)

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Home Connection 19 Worksheet (cont.)

11 Multiply each number by the first number in the row.

×	4	7	9	3	2	8	5	6	11
10	40	70	90	30	20	80	50	60	110

×	4	7	9	3	2	8	5	6	11
2									

×	4	7	9	3	2	8	5	6	11
4									

×	4	7	9	3	2	8	5	6	11
8									

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Home Connection 20 ★ Worksheet

Comparing Fractions of a Foot

Use your labeled foot-long strips to answer the questions below:

1 Which is larger: $\frac{1}{3}$ of a foot or $\frac{1}{4}$ of a foot? _____

2 Which is larger: $\frac{1}{2}$ of a foot or $\frac{1}{6}$ of a foot? _____

3 Which is larger: $\frac{1}{2}$ of a foot or $\frac{4}{6}$ of a foot? _____

4 Which is larger: $\frac{2}{3}$ of a foot or $\frac{3}{4}$ of a foot? _____

5 What do you get when you add $\frac{1}{2}$ of a foot and $\frac{1}{4}$ of a foot? _____

Quick Facts Practice

6 Multiply the number in each small box below by the number shown.

×	5	7	3	9	6	4	2	8
3	15	21	9	27	18	12	6	24

×	5	7	3	9	6	4	2	8
4								

×	5	7	3	9	6	4	2	8
6								

×	5	7	3	9	6	4	2	8
8								

(Continued on back.)



CHALLENGE

7 What do you get when you add $\frac{1}{3}$ of a foot and $\frac{2}{6}$ of a foot? _____

8 How many different combinations of fractions can you add together to equal $\frac{3}{4}$?
Write them below or on another piece of paper.

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Home Connection 21 ★ Worksheet

Modeling Egg Carton Fractions

1 Use your egg carton, string, and small objects like beans, cereal, or pasta shells to build a model of each fraction. Then draw a sketch of each fraction in the tables.

Build this fraction.	Sketch your model here.	Build this fraction.	Sketch your model here.
example $\frac{1}{3}$		e $\frac{5}{6}$	
a $\frac{1}{4}$		f $\frac{2}{6}$	
b $\frac{2}{3}$		g $\frac{10}{12}$	
c $\frac{3}{12}$		h $\frac{5}{12}$	
d $\frac{2}{4}$		i $\frac{3}{6}$	

2 What observations can you make about $\frac{3}{6}$ and $\frac{2}{4}$?

(Continued on back.)

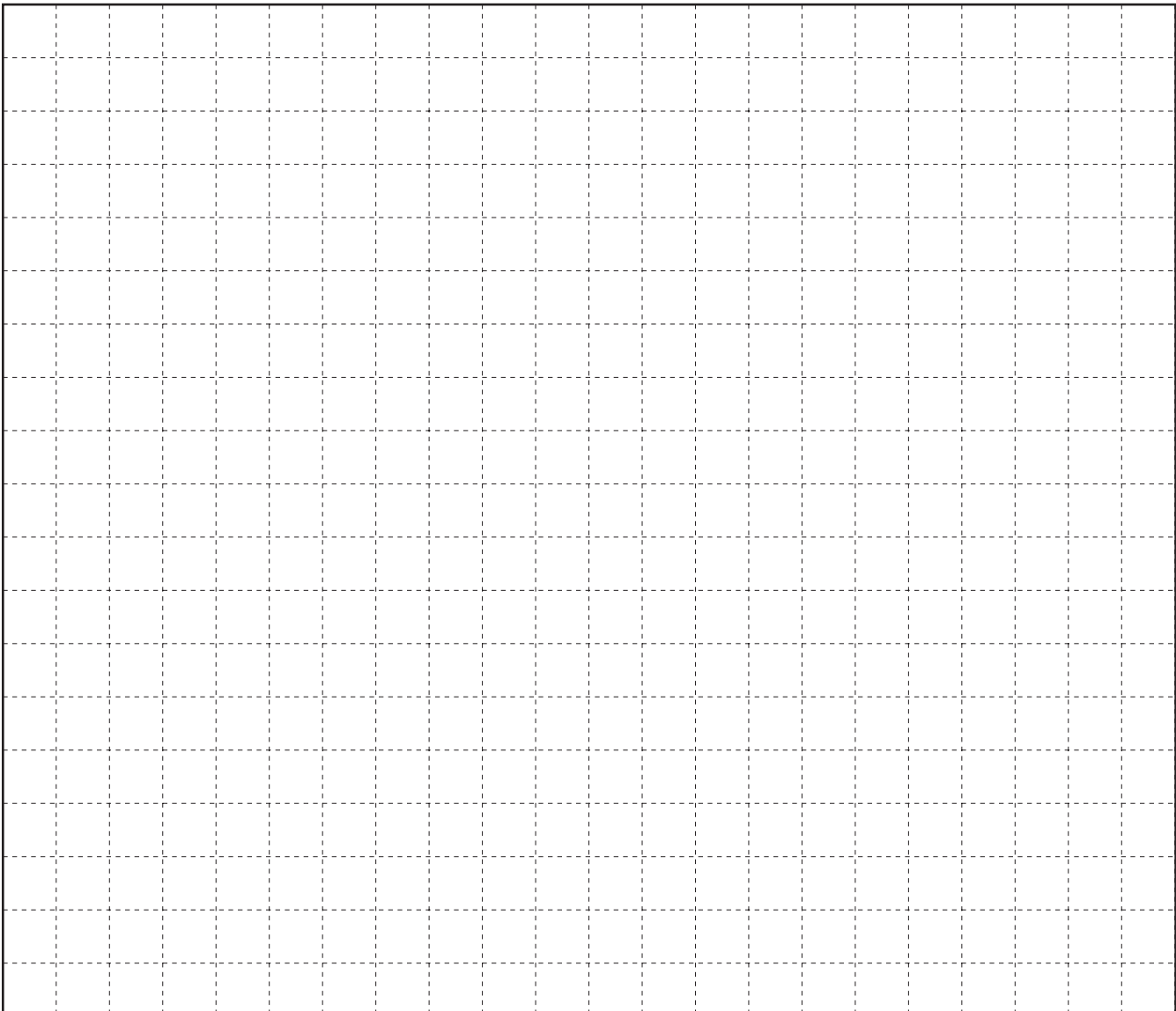
Home Connection 21 Worksheet (cont.)

3a Which is more, $\frac{1}{4}$ of a dozen or $\frac{1}{3}$ of a dozen? _____

b How much more is it?

c How do you know?

4 Draw and label some of the fractions you could make in an egg carton that holds 20 eggs.



NAME _____

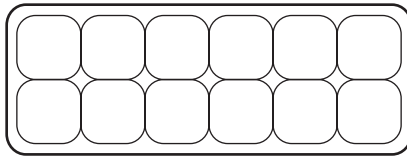
DATE _____

Home Connection 22 ★ Worksheet

Eggsplorations

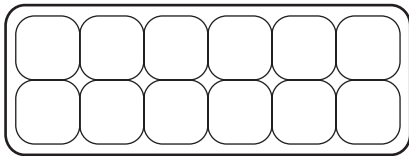
Use your egg carton, string, and small objects like beans, cereal, or pasta shells to do these problems.

- 1 Divide the carton into sixths and then fill $\frac{4}{6}$ of the carton. Sketch $\frac{4}{6}$ below.

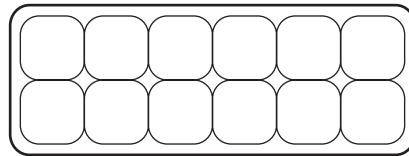


- 2 On the cartons below, show and label two other fractions that have the same value as $\frac{4}{6}$.

a

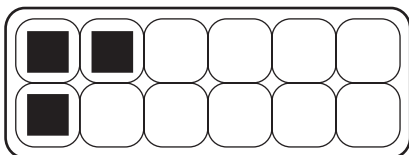


b

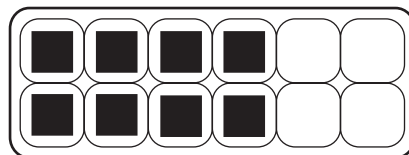


- 3 For each of the diagrams below, write two different fraction names.

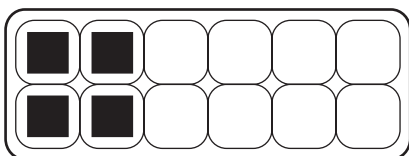
a



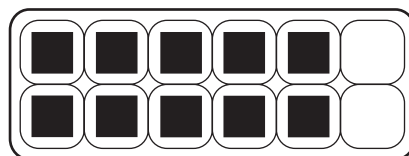
b



c



d



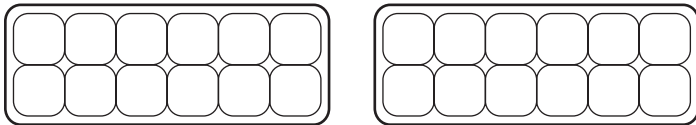
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Home Connection 22 Worksheet (cont.)

4 Gertie says that $\frac{1}{4}$ is bigger than $\frac{1}{3}$ because 4 is more than 3.

a Do you agree with her? _____

b Please explain your thinking in words and sketches. Use the cartons below if you want to.

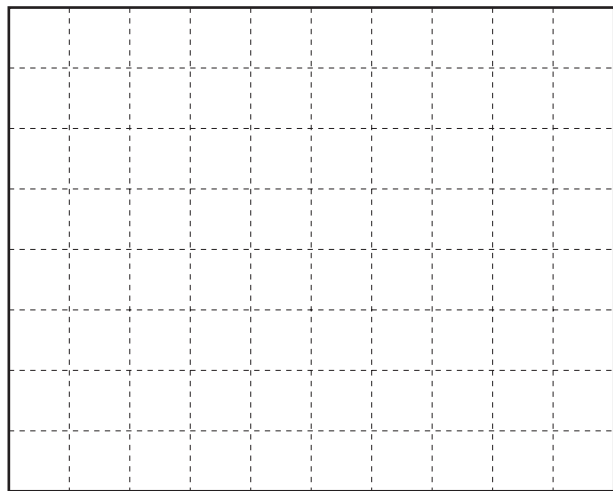
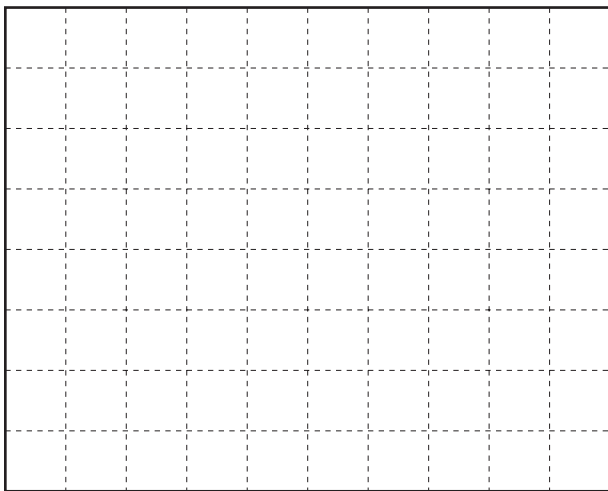


CHALLENGE

5 In a 12-egg carton, $\frac{1}{6}$ equals 2 eggs. Use the grids below to help you imagine and draw cartons where:

a $\frac{1}{6}$ is 3 eggs.

b $\frac{5}{6}$ is 25 eggs.



c How did you decide on the sizes of the cartons for a and b?

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Home Connection 23 ★ Worksheet

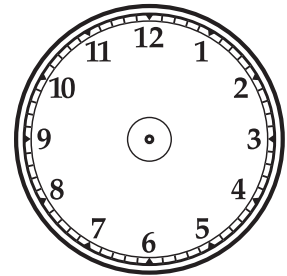
Clock Fractions

1 Steve started reading his chapter book at 6:30 and stopped at 7:15.

a How many minutes did he read? _____

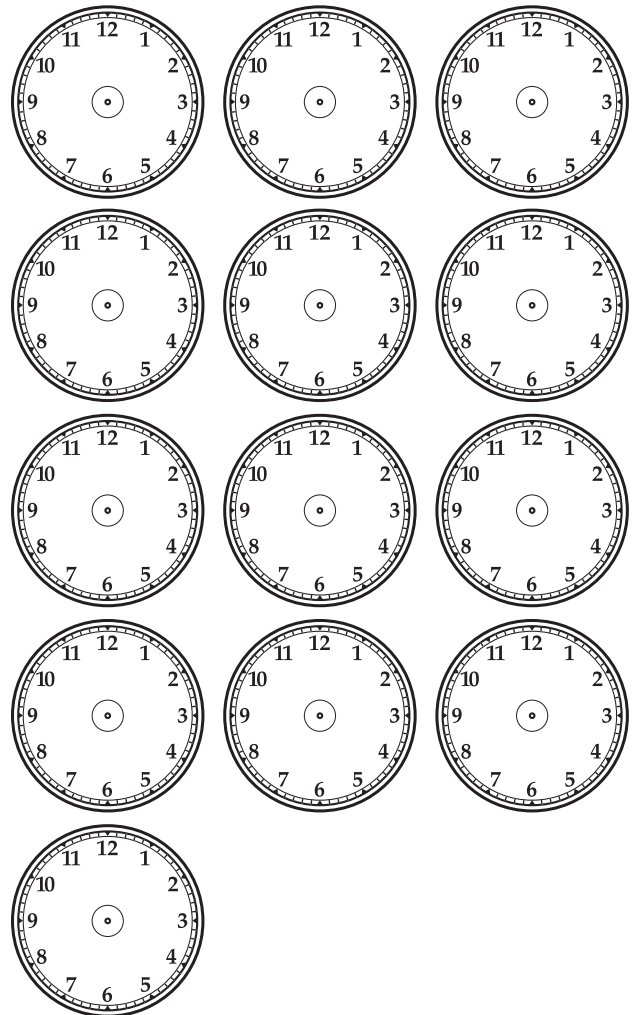
b What fraction of an hour is that? _____

c Is that closer to half an hour or an hour?



2 Complete the table below. Use the clock faces if they will help you.

fraction of an hour	minutes
$\frac{1}{3}$	
$\frac{2}{3}$	
$\frac{3}{3}$	
$\frac{1}{4}$	
$\frac{2}{4}$	
$\frac{3}{4}$	
$\frac{1}{6}$	
$\frac{2}{6}$	
$\frac{3}{6}$	
$\frac{4}{12}$	
$\frac{7}{12}$	
$\frac{10}{12}$	
$\frac{11}{12}$	



NAME _____

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Home Connection 24 ★ Activity



NOTE TO FAMILIES

Today's Home Connection brings math we've been studying at school into the kitchen. This hands-on activity using everyday kitchen supplies will improve your child's understanding of volume, measurement, fractions, and division.

You will need these materials:

- 3 cups of rice (You can substitute other dry food such as uncooked beans, oats, or dry cereal.)
- 1 large spoon
- 2 mixing bowls: one large enough to hold 3 cups of rice and the other large enough to hold 2 cups of rice
- 4 cereal or soup bowls
- separate measuring cups for 1 cup, $\frac{1}{2}$ cup, $\frac{1}{3}$ cup, and $\frac{1}{4}$ cup

Instructions for Fractions in the Kitchen

1 Carefully measure 3 cups of rice into the largest mixing bowl.

2 Then use the rice, other bowls, and measuring cups to do each of the problems below. Read the directions carefully, because the amounts of rice and the numbers of bowls keep changing.

a 1 cup of rice \div 2 bowls = _____ cup of rice in each bowl $1 \div 2 =$ _____

b 1 cup of rice \div 3 bowls = _____ cup of rice in each bowl $1 \div 3 =$ _____

c 1 cup of rice \div 4 bowls = _____ cup of rice in each bowl $1 \div 4 =$ _____

d 2 cups of rice \div 3 bowls = _____ cup of rice in each bowl $2 \div 3 =$ _____

e 2 cups of rice \div 4 bowls = _____ cup of rice in each bowl $2 \div 4 =$ _____

f 3 cups of rice \div 4 bowls = _____ cup of rice in each bowl $3 \div 4 =$ _____

(Continued on back).

Home Connection 24 Activity (cont.)**Review**

3 Solve the following division problems.

$1 \div 2 = \underline{\quad}$

$1 \div 4 = \underline{\quad}$

$2 \div 4 = \underline{\quad}$

$1 \div 3 = \underline{\quad}$

$2 \div 3 = \underline{\quad}$

$3 \div 4 = \underline{\quad}$

4 What pattern or patterns did you notice when you did this activity?

5 After doing this activity, what do you understand better about measuring and about fractions?

Cleaning up

- After you finish the activity, return the rice (or other food you used) to its container.
- Wash and dry the bowls, measuring cups, and spoon.
- Clear any spills off the counter and sweep the floor.

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Home Connection 25 ★ Worksheet



NOTE TO FAMILIES

In this activity, you and your child will cut out the fractional rulers on page 77 and look for items that are about as long, tall, or wide as each fraction of a foot. *The items do not need to measure exactly the same as each fraction of a foot.* Students have done a similar activity at school, so they are familiar with the process. This activity supports our study of fractions and measuring.

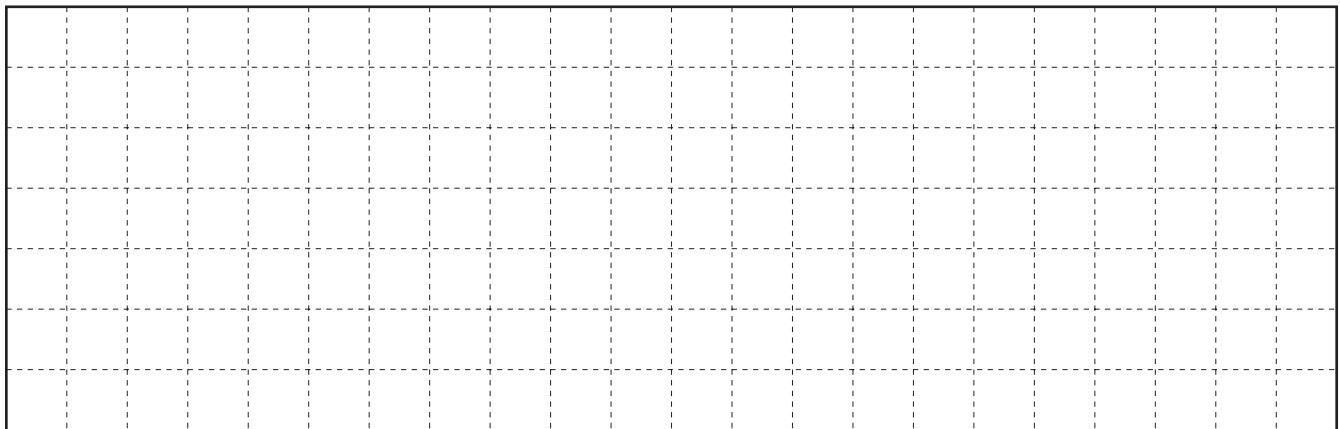
Fractions of a Foot Scavenger Hunt

Item Measured	Fraction of a Foot	Inches
1	$\frac{1}{4}$ ft.	
2	$\frac{1}{2}$ ft.	
3	$\frac{3}{4}$ ft.	

Factors of 12

4a Draw all the rectangles that have an area of 12 on the grid below.

b Label the dimensions and area of each rectangle.



5 List all the factors of 12.

6 What do you notice?

NAME _____ DATE _____

Home Connection 25 Worksheet (cont.)

Fractional Rulers

Cut out these fractional rulers and use them in your scavenger hunt.

$$\frac{1}{4} \text{ foot} = 3 \text{ inches}$$

$$\frac{1}{2} \text{ foot} = 6 \text{ inches}$$

$$\frac{3}{4} \text{ foot} = 9 \text{ inches}$$

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Home Connection 26 ★ Activity



NOTE TO FAMILIES

In this activity, you and your child will play a game to practice division with and without remainders. In class, we have been exploring a variety of ways to solve division problems, and your child will probably use strategies that are new to you. See if you can come up with some new ways yourself!

You'll need a pencil, paperclip, and markers, colored pencils, or crayons in two colors to play the game. Your child can show you how to use the pencil and paperclip as a spinner.

Instructions for Remainders Win

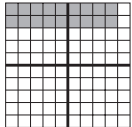
- 1 Take turns spinning one spinner to see who will go first. Write your names on the record sheet. Pick a different colored pencil, marker, or crayon each to circle arrays on the record sheets.
- 2 The first player circles an array with his or her color and finds the product.
- 3 The first player spins the spinner and divides the product by that number. He or she writes the division sentence in the first box on the record sheet.

Home Connections
 NAME Mayumi DATE _____
 Home Connection 26 Activity (cont.)

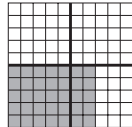
Remainders Win Record Sheet page 1 of 2

First Player Mayumi Second Player dad

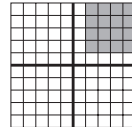
$27 \div 6 = 4 R3$		
Remainder Total		Remainder Total



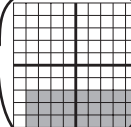
2×9



5×7

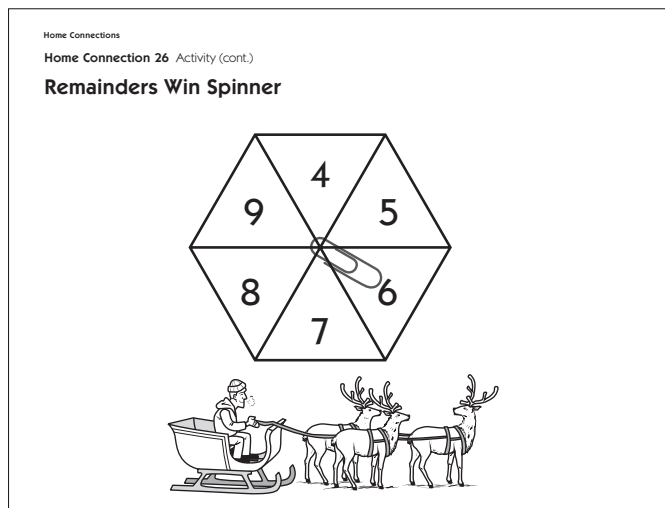


4×4

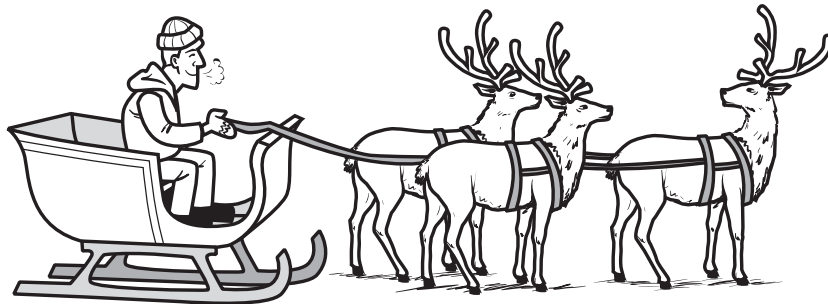
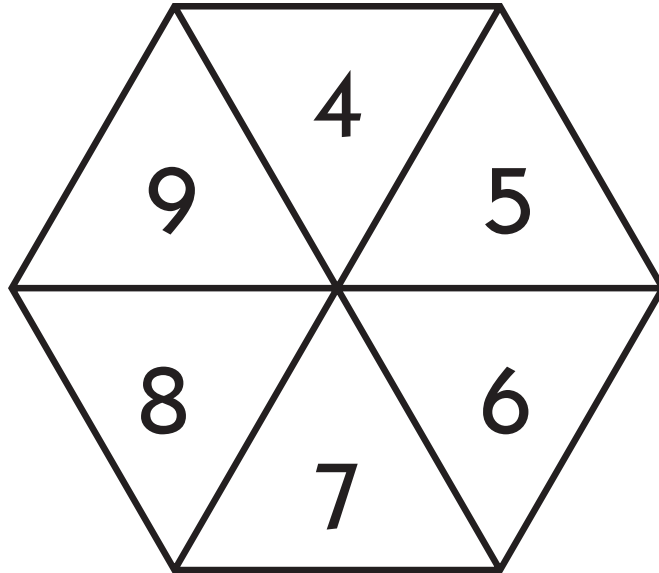


3×9

- 4 Player 2 repeats steps 2 and 3.
- 5 Take turns until each player has written 5 equations.
- 6 Both players add up their remainders. The player with the highest total wins.
- 7 Play a second round using the second record sheet.



Remainders Win Spinner



NAME _____

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Home Connection 27 ★ Worksheet

Fraction Stories

1 Susie wants to make some hot cereal for breakfast. The directions say to use 3 cups of water with 1 cup of cereal to make 4 servings. Susie only wants 1 serving.

a How much cereal should she use? _____

b How much water should she use? _____

c Show your thinking below.



2 The sports store is having a half-off sale where everything is half its original price. Complete the table below. You can show your work in the space below.

 SALE	
Original Price	Sale Price
\$84	
\$56	
\$120	
\$40.50	
	\$67
\$46.20	
	\$23.50

(Continued on back.)

Home Connection 27 Worksheet (cont.)







I weigh 8 pounds, so I need 2 cans a day!



What about me? I weigh 5 pounds, so I need more than 1 can but not 2. Can you help me out?

3 Missy's mother owns a pet supply store. The directions on the small cans of cat food say to feed a cat one can of food each day for every four pounds of body weight. Missy started to make a table to help people know how much of this food to give their cats every day. Please finish the table.

 weight in pounds	 cans per day
4	1
5	
6	
7	
8	2
9	

 weight in pounds	 cans per day
10	
11	
12	
13	
14	
15	

You can use the circles to help you figure out the amounts if you want.

