Sh	Home Link 3-1NAMEDATETIME						
Use one	drawings to help you solve the problems. Solve each problem in more than way. Show your work.						
1	Four friends shared 5 pizzas equally. How much pizza did each friend get?						
	One way:						
	Another way:						
2	Five kittens are sharing 6 cups of milk equally. How much milk does each kitten get?						
	One way:						
	Another way:						
Pra	ctice						
3	Name the next 4 multiples of 7. 7,,,,,,						
4	List all the factors of 18.						
(5)	List all the factors of 18 that are prime.						
6	List all the factor pairs of 40.						
	and : and :						



Finding Equivalent Fractions

Home Link 3-3		
NAME	DATE	TIME

SRB 136-137

2

3

<u>5</u> 5

<u>1</u> 6

<u>4</u> 5

<u>5</u> 6



a. $\frac{3}{12} = \frac{1}{4}$ **b.** $\frac{1}{2} = \frac{5}{10}$ **c.** $\frac{2}{6} = \frac{2}{5}$

- **d.** $\frac{7}{10} = \frac{4}{6}$
- **e.** $\frac{q}{10} = \frac{11}{12}$

Practice

Solve using U.S. traditional addition or subtraction.

_____ = 989 + 657 (5) 3,314 + 4,719 = _____ (4) (7) _____ = 2,004 - 1,716 5,887 - 3,598 = _____ (6)

Finding Equivalent Fractions



NAME

TIME

SRB

DATE

Family Note Today students learned about an **Equivalent Fractions Rule**, which can be used to rename any fraction as an equivalent fraction. The rule for multiplication states that if the numerator and denominator are multiplied by the same nonzero number, the result is a fraction that is equivalent to the original fraction.

For example, the fraction $\frac{1}{2}$ can be renamed as an infinite number of equivalent fractions. When you multiply the numerator 1 by 5, the result is 5. When you multiply the denominator 2 by 5, the result is 10.

$$\frac{1 \times \mathbf{5}}{2 \times \mathbf{5}} = \frac{5}{10}$$

This results in the number sentence $\frac{1}{2} = \frac{5}{10}$. If you multiplied both the numerator and denominator in $\frac{1}{2}$ by 3, the result would be $\frac{3}{6}$, which is also equal to $\frac{1}{2}$.

Fill in the boxes to complete the equivalent fractions.



Sharing Veggie Pizza

Home Link 3-5

NAME

DATE TIME

 Karen and her 3 friends want to share 3 small veggie pizzas equally. Karen tried to figure out how much pizza each of the 4 children would get. She drew this picture and wrote two answers.



- a. Which of Karen's answers is correct? _____
- **b.** Draw on Karen's diagram to make it clear how the pizza should be distributed among the 4 children.
- (2) Erin and her 7 friends want to share 6 small veggie pizzas equally.

How much pizza will each of the 8 children get? _____

(3) Who will get more pizza, Karen or Erin?

Explain or show how you know.

Practice

- List all the factors of 50. _____
- (5) Is 50 prime or composite? _____
- 6 Write the factor pairs for 75.
 - _____ and _____
 - _____ and _____
 - _____ and _____



ſ	SRB
	124, 137
ч	\sim

Solving Compa **Stories**

olv	e the problems below.						
D	Tenisha and Christa were each reading the same book. Tenisha said she was $\frac{3}{4}$ of the way done with it, and Christa said she was $\frac{6}{8}$ of the way finished.						
	Who has read more, or have they read the same amount?						
	How do you know?						
2)	Heather and Jerry each bought an ice cream bar. Although the bars were the same size, they were different flavors. Heather ate $\frac{5}{8}$ of her ice cream bar, and Jerry ate $\frac{5}{10}$ of his.						
	Who ate more, or did they eat the same amount?						
	Write a number sentence to show this.						
3)	Howard's baseball team won $\frac{7}{10}$ of its games. Jermaine's team won $\frac{2}{5}$ of its games. They both played the same number of games.						
	Whose team won more games, or did they win the same amount?						
	How do you know?						
I)	Write your own fraction number story. Ask someone at home to solve it.						

Practice

Write T for true or F for false.

(5) 1,286 + 2,286 = 3,752 ____ 9,907 - 9,709 = 200 _____ (6) (7)2,345 - 198 = 2,969 - 822 ____ 2,641 + 4,359 = 2,359 + 4,641 _____ (8)

Comparing and Ordering Fractions

Home Link 3-7		
NAME	DATE	TIME

135, 147-148

Write the fractions from smallest to largest, and then justify your conclusions by placing the numbers in the correct places on the number lines.



Names for Fractions and Decimals

		$ _$
Home Link 3-8		
NAME	DATE	TIME

(1) Fill

Fill in the blanks in the table below.



Number in Words	Fraction	Decimal
one-tenth		
four-tenths		
	<u>8</u> 10	
		0.9
	<u>2</u> 10	
seven-tenths		

(2) Name two ways you might see decimals used outside of school.



Representing Fractions and Decimals

Home Link 3-9

NAME

DATE TIME

If the grid is the whole, then what part of each grid is shaded? SRB 150-151 Write a fraction and a decimal below each grid. 3 (1)2 fraction: _____ fraction: _____ fraction: _____ decimal: _____ decimal: _____ decimal: _ (5) (4) Color 0.8 of the grid. Color 0.04 of the grid. (6) Color 0.53 of the grid. **Practice** (7)The numbers 81, 27, and 45 are all multiples of 1, _____, and _____.

8 List the first ten multiples of 6.

____, ____

_, ___

_____, ____

_, ___

_, __

Tenths and Hundredths

Home Link 3-10	
NAME	DATE

TIME

Family Note Your child continues to work with decimals. Encourage him or her to think about ways to write money amounts. This is called dollars-and-cents notation. For example, \$0.07 (7 cents), \$0.09 (9 cents), and so on.

Write	Write the decimal numbers that represent the shaded part in each diagram. Whole							Whole	
1		2				3			grid SRB 149-150
	hundredths		hundre	edths			hundr	redth	S
	tenths hundredths		tenths	_ hunc	dredths		tenths	իս	Indredths
Write	e the words as decimal n	umbe	rs.						
4	twenty-three hundredth	6		5	eight a	nd fo	ur-tenths		
6	thirty and twenty-hundre	edths		7	five-hu	ndred	ths		
							_		
Cont	inue each pattern.								
8	0.1, 0.2, 0.3,	,	,	,		,			-
9	0.01, 0.02, 0.03,	,,					, _		
Pra	ctice								
10	Round 7,604 to the nea	irest t	housand						
(11)	Round 46,099 to the ne	earest	thousand.						
12	Round 8,500,976 three	ways	: nearest the	ousan	d, hundr	red-th	ousand, an	nd mi	llion.

Practice with Decimals

Home Link 3-11

NAME

DATE TIME

Fill in the missing numbers.





Copyright © McGraw-Hill Education. Permission is granted to reproduce for classroom use.

139

Comparing Decimals

Home Link 3-13

NAME

TIME

Copyright @ McGraw-Hill Education. Permission is granted to reproduce for classroom use.

DATE

Family Note Ask your child to read the decimal numerals aloud. Encourage your child to use the following method:

- **1.** Read the whole-number part.
- 2. Say and for the decimal point.
- 3. Read the digits after the decimal point as though they form their own number.
- **4.** Say *tenths* or *hundredths*, depending on the placement of the right-hand digit. Encourage your child to exaggerate the *-ths* sound. For example, 2.37 is read as "two and thirty-seven hundredths."

Write	e >, <, or =.				SRB 154-155
1	2.35 2.57	2 1.08 2	1.8	> means <i>i</i> s	
3	0.64 0.46	(4) 0.90 (P.Q	greater than	
(5)	42.1 42.09	6 7.09 7	7.54	< means is	
7	0.4 0.40	8 0.26 0	0.21		
Exar	nple: The 4 in 0.47 stand	ls for 4 _tent	7 s _or	0.4	
9	The 9 in 4.59 stands for	۰ q	or		
10	The 3 in 3.62 stands for	3	or		
Cont	inue each number patter	n.			
11	6.56, 6.57, 6.58,				
(12)	0.73, 0.83, 0.93,	,	,		
Write	e the number that is 0.1 r	nore.	Write the r	umber that is 0.1 less.	
13	4.3 (14) 4.0)7	15 8.2	16 5.63	
Pra	ctice				
(17)	43,589 + 12,641 =		18 63,274	1 + 97,047 =	
(19)	41,805 - 26,426 =		20 82,004	4 - 11,534 =	

Unit 4: Family Letter

Home Link 3-14

NAME

DATE TIME

Multidigit Multiplication

In Unit 4 your child will multiply multidigit numbers using **extended multiplication facts**, **partial-products multiplication**, and **lattice multiplication**. Throughout the unit, students use these methods to solve real-life multistep multiplication number stories.

The unit begins with extended multiplication facts. Knowing that 5 * 3 = 15 helps students see that 50 * 3 = 150; 500 * 3 = 1,500; and so on. Working with extended facts gives students the ability to multiply larger numbers with ease.

Students also learn the partial-products multiplication method in which the value of each digit in one factor is multiplied by the value of each digit in the other factor. They partition a rectangle into smaller parts to help them understand how the method works. The example below shows how to use partial-products multiplication to find 456 * 4.

Partitioned Rectangles				Partial-Products Multiplication	
400 + 50 + 6					456
4	4 1600 200 24				$ \begin{array}{r} $
	456		$4 * 6 \longrightarrow \frac{+ 2 4}{1, 8 2 4}$		

To practice multiplying 2-digit numbers using partial-products multiplication, students play a game called *Multiplication Wrestling*.

Finally, students are introduced to the lattice multiplication method: The lattice method breaks down the numbers into place values, allowing students to work with smaller numbers while solving a multidigit multiplication problem. It is an efficient method, often taking no more time than other methods.



Copyright @ McGraw-Hill Education. Permission is granted to reproduce for classroom use.

In this unit, students apply their understanding of multidigit multiplication to solve conversion problems involving liters and milliliters and grams and kilograms. They also find the area of rectilinear figures.

Please keep this Family Letter for reference as your child works through Unit 4.

Vocabulary

Important terms in Unit 4: **adjacent** Next to, or adjoining.

decompose To "break apart" numbers into friendlier numbers.

Distributive Property A rule saying that if *a*, *b*, and *c* are real numbers, then: a * (b + c) = (a * b) + (a * c).

extended multiplication facts Multiplication facts involving multiples of 10, 100, and so on. For example, 400 * 6 = 2,400 and 20 * 30 = 600 are extended multiplication facts.

gram (g) A unit of mass in the metric system. There are about 454 grams in 1 pound.

kilogram (kg) 1,000 grams.

lattice multiplication A way to multiply multidigit numbers. *For example:*



liter (L) A unit of capacity in the metric system. It is equivalent to a little more than one quart.

Do-Anytime Activities

To work with your child on concepts taught in this unit, try these activities:

- 1. Practice extended multiplication facts such as 50 * 40 =_____
- 2. Collect three to five cans and bottles from the kitchen. Put them on the table and ask your child to order them, without looking at the labels, based on the amount of liquid each container can hold and/or their mass. Ask your child to estimate both. Check the results together by looking at the labels.
- **3.** Pose a multiplication problem and ask your child to solve it using a method of his or her choice. Have your child explain to you or someone else at home what he or she did to complete the problem.

mass The measure of the amount of matter in an object.

milliliter (mL) $\frac{1}{1000}$ of a liter.

partial-products multiplication A way to multiply in which the value of each digit in one factor is multiplied by the value of each digit in the other factor. The final product is the sum of the partial products. *For example:*

		73
	*	46
40 * 70 →	2	800
40 * 3 →		120
6 * 70 →		420
6 * 3 →	+	18
	3,	358

partition (in partial-products multiplication) A technique that uses the Distributive Property to break up a large rectangle into smaller rectangles in order to find the area more easily in parts.

rectilinear figure A single figure formed by combining multiple adjacent rectangles.



Building Skills through Games

In this unit your child will play the following game to develop his or her understanding of multiplication. For detailed instructions, see the *Student Reference Book*.

Multiplication Wrestling See *Student Reference Book,* page 267. The game provides practice with multiplication of 2-digit numbers by 2-digit numbers.

As You Help Your Child with Homework

As your child brings assignments home, you may want to go over instructions together, clarifying them as necessary. The answers listed below will guide you through the Home Links for this unit.

Home Link 4-1

- **1.** 560; 3,200; 630; 3,600
- **3.** 450; 200; 63,000; 28,000
- **5.** 9; 240; 700; 6,300
- **7.** Answers vary. **9.** 1,190
- **11.** 13,303

Home Link 4-2

Number models are sample answers.

- (20 * 30) − (10 * 30) = 300; 330; Answers vary.
- **3.** 30 * 50 = 1,500; 30 * 40 = 1,200; 1,500 − 1,200 = 300; 496; Answers vary.
- **5.** 1,410,000

Home Link 4-3

1. 140; Sample answer:



3. 441; Sample answer:



Home Link 4-4

- **1.** 8,000; 15,000; 20,000; 25,000
- **3.** 122,000 mL **5.** 14,445 **7.** 62,341

Home Link 4-5

- Sample answer: Four calculators fit in a layer. The box is 5 cm tall, so there are 5 layers of calculators. The box fits 4 calculators * 5, which is 20 calculators in all.
- **3.** 108 **5.** 129

Home Link 4-6

- **3.** 9 [100,000s] + 5 [1,000s] + 6 [100s] + 3 [1s]

Unit 4: Family Letter, continued

5. 2 [1,000,000s] + 5 [100,000s] + 9 [10,000s] + 9 [1,000s] + 2 [1s]

Home Link 4-7

- **1.** 25; 50,000; 75,000; 100
- **3.** 237,000; 98,000; 485; 920,000
- **5.** 63,000 grams **7.** 396 **9.** 294

Home Link 4-8

1.	\$478	3.	\$55
5.	1, 3, 7, 21	7.	1, 2, 3, 4, 6, 9, 12, 18, 36

7. 1.992

Home Link 4-9

1. 1,748

_

	*	46 38
	1	200
		180
		320
+		48
	1.	748

3. 65 * 22 = *t*; 1,430 trees

5. 185

Home Link 4-10

- **1.** 42; 420; 420; 4,200; 4,200; 42,000
- **3.** 32; 320; 320; 3,200; 3,200; 32,000
- **5.** 6; 6; 60; 9; 900; 9,000
- **7.** 2,139 **9.** 32,632

Home Link 4-11

- **1.** 18 * 27 = 486; 486 square units
- Sample answer: 100 * 30 = 3,000; 20 * 20 = 400; 3,000 + 400 = 3,400; 3,400 square inches

5. 1, 2, 31, 62 **7.** 1, 5, 11, 55

Home Link 4-12

Sample number models:

1. (10 * 7) * 2 = 140; (5 * 7) * 2 = 70; 140 + 70 = 210 stickers;

> (8 * 7) * 2 = x; (5 * 7) * 2 = y;112 + 70 = s; 182 stickers

- **3.** 1 and 50, 2 and 25, 5 and 10
- 5. 1 and 85, 5 and 17

Home Link 4-13

1. 536



2. 5,852



use.

granted to reproduce for classroom

Copyright © McGraw-Hill Education. Permission is

4. 2,552

6. 616

