

Use after Unit One, Session 10 (cont.)

Page 10, Centimeters, Decimeters & Meters (cont.)

- **a** (challenge) Sherman crawled 237 cm farther than Sidney.
 - **b** (challenge) Explanations will vary. Example: Sidney was faster because he would have gone 5 meters or 500 cm in an hour.

Use after Unit One, Session 21

Page 11, Multiplication & Division Facts

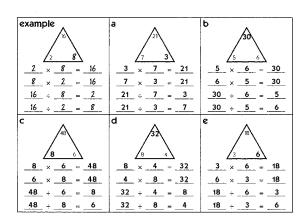
- **1** 24, 16, 42, 30, 24, 18, 0 8, 36, 36, 40, 15, 63, 48 9, 6, 9, 4 2, 6, 2, 7
- **2** 18, 20, 35, 32, 64 2, 5, 3, 5, 8
- 3 (challenge) Responses will vary. Example: Since 16 is 2×8 , you can multiply the answer to 4×8 by 2 to get 4×16 . $4 \times 8 = 32$ and $32 \times 2 = 64$, so $4 \times 16 = 32$.

Page 12, Sandwiches, Pizza & Books

- **1** \$18
- 2 4 pieces of pizza
- 3 (challenge) 12,706 books

Page 13, All in the Family

1



2 a (challenge)



$$81 \div 9 = 9$$

 $9 \div 3 = 3$

b (challenge)



$$32 \div 8 = 4$$

 $4 \times 7 = 28$

Page 14, Flowers, Shells & Cards

- 1 24 flowers
- **2** 6 shells
- 3 (challenge) 6 bundles

Page 15, Multiples & Multiplication Facts

- **1 a** 9, 21
 - **b** 12, 24
 - **c** 27, 54
- **2 a** 6, 8, 14, 10 should be circled.
 - **b** 8, 16, 20, 28 should be circled.
 - **c** 21, 14, 42, 35 should be circled.
 - **d** 32, 48, 16, 72 should be circled.
 - e 21, 18, 36, 12 should be circled.
- **3** 81, 27, 16, 12, 56 8, 2, 6, 9, 4 (challenge) 12, 24, 48, 96, 192

Page 16, Tasty Treats

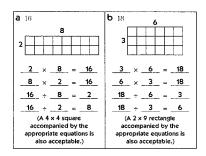
- 1 40 milkshakes
- There are two possible answers:
 2 cookies each, with 3 cookies left over OR
 21/2 cookies each
- **3** (challenge) 197 pounds of vegetables



Use after Unit One, Session 21 (cont.)

Page 17, Arrays & Factors

1



- **2 a** 1, 2, 4, 8, 16
 - **b** 1, 17
 - **c** 1, 2, 3, 4, 6, 8, 12, 24
 - **d** 1, 3, 9
 - **e** 1, 2, 3, 4, 6, 9, 12, 18, 36
- **3** a 17 should be circled.
 - **b** 16, 9, and 36 should have squares around them.
- **4 a** (challenge) 306 + 398 = 704
 - **b** (challenge) 623 446 = 177

Page 18, The Big Race & the Walk-a-Thon

- 1 3 hours
- 2 30 kilometers
- **3** 4 groups of 8, or 8 groups of 4, or 16 groups of 2.

Page 19, Area & Perimeter

1 a Perimeter: 4 + 4 + 4 + 4 = 16 units;

Area: $4 \times 4 = 16$ square units

b Perimeter: 4 + 4 + 6 + 6 = 20 units;

Area: $4 \times 6 = 24$ square units

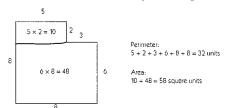
c Perimeter: 3 + 3 + 7 + 7 = 20 units;

Area: $3 \times 7 = 21$ square units

2 (challenge) Perimeter = 32 units

Area = 58 square units

Students' work will vary. Example:



Page 20, Area & Perimeter Story Problems

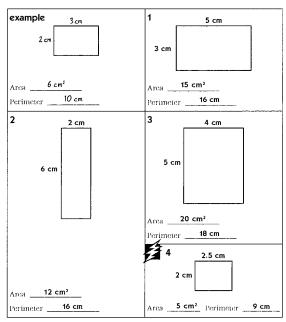
- 1 a 72 square feet
 - **b** 34 feet
- 2 a 28 square feet
 - **b** 22 feet
- **3** 1,500 feet

Use after Unit Two, Session 10

Page 21, Place Value & Perimeter

- **1 a** 9,248
 - **b** 17,633
 - **c** 32,058
- 2 a Hundreds, six hundred
 - b Hundreds, zero
 - c Ten thousands, forty thousand
- **3 a** 720 inches
 - **b** 962 inches

Page 22, Measuring to Find Area & Perimeter



Page 23, Multiplication & Division Practice

- **1** 21, 16, 36, 25, 8, 54, 12
 - 8, 4, 2, 8
 - 6, 5, 8, 6
- **2** 63, 0, 49, 5, 40
 - 6, 8, 8, 4, 6



Use after Unit Two, Session 10 (cont.)

Page 23, Multiplication & Division Practice (cont.)

- **3** 40; 400; 4,000; 70; 700; 7,000 800; 50; 6,000; 20; 900; 0
- 4 (challenge) 100, 8, 10

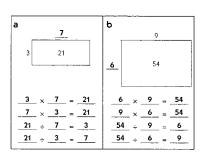
Page 24, Multiplication & Division Story Problems

- 1 700 bags of dried apples
- **2** 20 miles
- 3 6,000 footballs
- **4** (challenge) Students' work will vary. Possible equal groups are:
 - 4 groups of 25 seashells
 - 5 groups of 20 seashells
 - 10 groups of 10 seashells
 - 20 groups of 5 seashells
 - 25 groups of 4 seashells
 - 50 groups of 2 seashells

Page 25, Expanded Notation & Fact Families

- **1 a** 20,456
 - **b** 32,112
 - **c** 7,046
 - **d** 96,035
 - **e** 63,007
 - **f** 13,855
 - **g** 50,305
- **2** a 1,000
 - **b** 300
 - **c** 7,000
 - **d** 30
 - **e** 400
 - **f** 60
 - **g** 400

3



Page 26, Money & Stadium Seats

- **1** \$65.00
- 2 2504 empty seats
- **3** (challenge) \$1,335.00 more

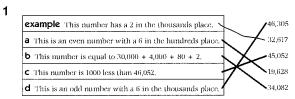
Page 27, Time after Time

- 1 Clock hands should show 7:35.
- 2 Clock hands should show 9:50.
- 3 Clock hands should show 5:20.
- 4 (challenge) Responses will vary. Example: Clock hands that show 4:15 on the first clock and 5:40 on the second clock

Page 28, Time & Distance Problems

- 1 a 1 hour and 10 minutes
 - **b** (challenge) 3:55 pm
- 2 a 1,000 centimeters each hour
 - **b** 10 meters
 - **c** (challenge) 15 meters; explanations will vary. Example: Half of 10 is 5, so the spider will crawl 5 more meters in 1 and a half hours.

Page 29, Number Riddles



- 2 a Thirty-three thousand, seventy-two
 - **b** Eighty-six thousand, one hundred five
 - c Seventy-four thousand, six hundred twenty-nine
- 3 (challenge) Answers will vary. Example: 5,730

Page 30, The Arcade & the Animal Shelter

- **1 a** Responses will vary. Example: *How much money does Rene have?*
 - **b** \$2.25
- **2 a** Responses will vary. Example: *How much money did Lin get for the shelter?*
 - **b** 75¢

Use after Unit Two, Session 21

Page 31, Counting Coins & Bills

- 1 a \$0.66
 - **b** \$0.50
 - **c** \$0.17
 - **d** \$0.75
 - e \$0.61



Use after Unit Two, Session 21 (cont.)

Page 31, Counting Coins & Bills (cont.)

2 a \$3.47

b \$1.74

c \$1.12

d \$5.85

e \$3.91

f (challenge) \$7.97

g (challenge) \$16.45

Page 32, How Much Change?

1 \$3.35

2 \$6.11

3 (challenge) \$4.06

Page 33, Multiplying with Money

1 a 75; students' work will vary.

b 105; students' work will vary.

2 a (challenge) 310; students' work will vary.

b (challenge) 315; students' work will vary.

Page 34, Money & Miles Per Hour

1 \$60.00

2 39 miles

3 (challenge) \$300.00

Page 35, Fill the Frames

1 10 5 4 4 x 10 = 40 4 x 5 = 20	40 + 20 = 60	4 x 15 = 60
2 10 7 3 3 x 10 = 30 3 x 7 = 21	30 + 21 = 51	3 x 17 = 51
3 10 6 5 5 x 10 = 50 5 x 6 = 30	50 + 30 = 80	5 x 16 = 80

Page 36, Apricots & Carrots

1 \$1.35

2 \$2.25

3 (challenge) 3 loads of laundry

Page 37, Addition & Multiplication Puzzles

1 a

			225
66	13	100	179
80	50	30	160
75	13	50	138
			166

2 a

				60
	100	2	3	600
	4	2	1,000	8,000
	10	3	2	60
•			·	400

3 a 2

b 10

c 8

d 2

e 100

Page 38, Candy & Video Games

1 a Responses will vary. Example: How much money did Joya spend in all?

b \$2.24

2 a Responses will vary. Example: *How much money does Devante need?*

b \$139.00

Page 39, Multiplication Puzzles

1

			60
3	5	5	75
7	2	3	42
6	2	6	72
			36



Use after Unit Two, Session 21 (cont.)

Page 39, Multiplication Puzzles (cont.)

2

			60
5	5	3	75
3	4	5	60
5	5	6	150
			120

3

			100
4	8	5	160
2	5	5	50
4	3	4	48
			80

4 (challenge)

			240
7	2	20	280
5	3	4	60
4	6	3	72
			63

5 (challenge)

			120
3	30	4	360
7	6	10	420
5	25	2	250
			36

Page 40, The Information You Need

- 1 Emilio has \$125. He wants to buy a new video game system that usually costs \$312 but is on sale for \$289. He wants to borrow money from his brother so that he can buy it while it is on sale. How much money will Emilio need to borrow to buy the game system while it is on sale?
 - **a** Responses will vary. Example: *How much money does Emilio need to borrow?*

b&c See above.

d \$164.00

- 2 Marie had a \$5 bill, three \$1 bills, 2 quarters, and 3 pennies in her pocket. She bought a bottle of juice for 89¢ and an apple for 65¢. If she paid with two \$1 bills, how much change did she get back?
 - **a** Responses will vary. Example: *How much change did Marie get?*

b&c See above.

d 46¢

Use after Unit Three, Session 10

Page 41, Fractions of a Foot

1 a $^{1}/_{3}$, $^{2}/_{6}$, $^{4}/_{12}$



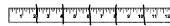
b ¹/₂, ³/₆, ⁶/₁₂



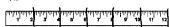
 $\mathbf{c}^{-1}/_{6}, \, ^{2}/_{12}$

1 2	յ ուհուհուհո	յուրայացում Մահականական	77 8	9 10	11 12
1 2			7 8	• 10	11 12

2 a $^{4}/_{6}$, $^{2}/_{3}$



b 5/6

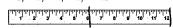




Use after Unit Three, Session 10 (cont.)

Page 41, Fractions of a Foot (cont.)

2 c $\frac{2}{2}$, $\frac{3}{3}$, $\frac{4}{4}$, $\frac{6}{6}$, $\frac{12}{12}$



d $\frac{4}{12}$, $\frac{1}{3}$

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 $e^{-8/_{12}, 4/_6}$

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Page 42, More Fractions of a Foot

- **1 a** 6
 - **b** 3
 - **c** 2
 - **d** 4
- 2 a ¹/₃ should be circled (4 inches, 3 inches)
 - **b** ²/₃ should be circled (8 inches, 6 inches)
 - c $\frac{1}{2}$ and $\frac{3}{6}$ should be circled (both are 6 inches)
 - **d** ³/₄ should be circled (8 inches, 9 inches)
 - e ²/₃ should be circled (3 inches, 8 inches)
- **3 a** 1, 2, 3, 4, 6, 12
 - **b** 1, 3, 5, 15
 - **c** 1, 2, 3, 4, 6, 9, 12, 18, 36
 - **d** 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
 - **e** (challenge) 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 120

Page 43, Comparing Fractions on a Number Line

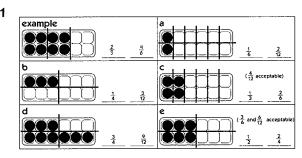
- **1 a** $\frac{2}{3}$ should be circled; $\frac{2}{3} > \frac{2}{6}$
 - **b** $\frac{5}{6}$ should be circled; $\frac{5}{6} > \frac{1}{3}$
- **2 a** $\frac{3}{4}$ should be circled; $\frac{3}{4} > \frac{2}{3}$
 - **b** $\frac{5}{6}$ should be circled; $\frac{5}{6} > \frac{2}{3}$
 - c $\frac{5}{6}$ should be circled; $\frac{5}{6} > \frac{3}{4}$

Page 44, Egg Carton Fractions

- **1** 6, 4, 3, 2
 - 18, 8, 9, 10
- 2 a $^{2}/_{6}$
 - **b** $^{1}/_{4}$
 - $c^{-1/2}$
 - **d** $\frac{5}{6}$
 - $e^{-3/4}$
 - $f^{-4}/_{6}$
- 3 a $\frac{4}{6} = \frac{2}{3}$
 - **b** $\frac{1}{3} > \frac{1}{4}$
 - \mathbf{c} $^{3}/_{4}$ < $^{5}/_{6}$

- **d** $^{1}/_{3}$ < $^{3}/_{4}$
- $e^{-1/2} = \frac{2}{4}$
- \mathbf{f} $^{2}/_{3}$ < $^{3}/_{4}$
- $g^{-2}/_6 = \frac{1}{3}$

Page 45, More Egg Carton Fractions



2			
	Egg Carton	Mixed Fraction	Improper Fraction
	example	1 4	भे
		$1\frac{1}{3}$ $(1\frac{2}{6} \text{ or } 1\frac{4}{12} \text{ acceptable})$	$(\frac{8}{6} \text{ or } \frac{16}{12} \text{ acceptable})$
	b 2000	$1\frac{2}{3}$ $(1\frac{4}{6} \text{ or } 1\frac{8}{12} \text{ acceptable})$	$\frac{\frac{5}{3}}{(\frac{10}{6} \text{ or } \frac{20}{12} \text{ acceptable})}$

Page 46, Comparing & Ordering Fractions

- $1 \frac{1}{4}, \frac{1}{3}, \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{3}{2}, \frac{5}{3}, \frac{7}{4}$
- **2** ¹/₄, ¹/₂, 1³/₄, 2¹/₄, 3
- 3 $^{2}/_{3}$, 2, $2^{1}/_{3}$
- 4 (challenge) ⁸/9; explanations will vary. Example: ³/₄ is ¹/₄ less than 1. ⁸/₉ is ¹/₉ less than 1. ¹/₄ is more than ¹/₉, so ³/₄ must be less than ⁸/₉.
- **5** (challenge) ${}^{5}/_{4}$; explanations will vary. Example: ${}^{5}/_{4}$ is the same as ${}^{1}/_{4}$. ${}^{10}/_{9}$ is the same as ${}^{1}/_{9}$. ${}^{1}/_{4} > {}^{1}/_{9}$, so ${}^{5}/_{4} > {}^{10}/_{9}$.

Page 47, Fractions & Mixed Numbers on a Number Line

- 1 a $^{3}/_{2}$
 - **b** $1^2/_4$ ($1^1/_2$ is also acceptable)
 - **c** $1^{1}/_{2}$
 - **d** $3^{1}/_{4}$
 - $e^{-5/2}$
 - f 8/4
- 2 (challenge) 1/2
- 3 (challenge) 1¹/₂
- 4 (challenge) 8¹/₂



Use after Unit Three, Session 10 (cont.)

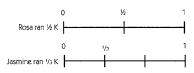
Page 48, Fraction Story Problems

1 Jim's string is ¹/₄ of a foot longer than Damien's. Student work will vary. Example:

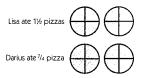


Jim's string = ¾ of a foot Damien's string = ½ of a foot Jim's string is ¼ of a foot longer than Darien's.

2 Rosa ran further than Jasmine. Student work will vary. Example:



3 (challenge) Darius ate ¹/₄ more of a pizza than Lisa did. Student work will vary. Example:



Page 49, Clock Fractions

1 a 30

b 20

c 15

d 10

2 Note: Other shadings are possible.

Fractions	Picture on a Clock	How Many Minutes?
$\frac{3}{4}$		45 minutes
b		40 minutes
1/6·		10 minutes

Page 50, Time & Fractions

1 a Mai spent more time doing homework.(10 more minutes) Students' work will vary.

b 5:15; students' work will vary.

c 5:25; students' work will vary.

2 (challenge) It takes 10 more minutes to get to Ashley's aunt's house.

Use after Unit Three, Session 20

Page 51, Multiplication Tables

1 a 15, 6, 27, 9, 24, 18, 21, 12

b 20, 8, 36, 12, 32, 24, 28, 16

c 40, 16, 72, 24, 64, 48, 56, 32

2 8, 9, 4, 4 8, 8, 3, 3

3 (challenge) Answers will vary. Example: 376

4 (challenge) Answers will vary. Example: $2 \times 376 = 752$

Page 52, Fractions & Division

1 a $^{1}/_{2}$

b 1/4

 $c^{-1}/_6$

2 Each friend got ½ of the cookie.

3 Each friend got 4/3 or 11/3 cookies.

Page 53, More Multiplication Tables

1 32, 30, 49, 48, 36

7, 7, 5, 7, 9

2 a 50, 20, 90, 30, 80, 60, 70, 40

b 25, 10, 45, 15, 40, 30, 35, 20

c 45, 18, 81, 27, 72, 54, 63, 36

3 (challenge) 120, 60, 108, 180, 90, 162

Page 54, Classroom Groups

- **1** Each student got 3 erasers, and there were 2 erasers left over.
- 2 a 27 students

b (challenge) 9 groups of 3



Use after Unit Three, Session 20 (cont.)

Page 55, Fractions of an Hour

Note: Other shadings are possible.

$\frac{1}{3}$		20 minutes
3 3 4	(i)	45 minutes
3 2/3	(b)	40 minutes
$\frac{1}{6}$		10 minutes

Page 56, More Time & Distance Problems

- 1 ¹/₄ of an hour; 15 minutes
- 2 (challenge) 9 feet

Page 57, Fractions & Divison Tables

- 1 a $\frac{3}{4} < \frac{5}{6}$
 - **b** $^{2}/_{3} = ^{4}/_{6}$
 - **c** $\frac{5}{3} > \frac{5}{4}$
 - **d** $\frac{2}{3}$ < $\frac{3}{2}$
 - $e^{-1/3} < \frac{3}{6}$
- **2 a** 9, 2, 8, 3, 5, 6, 4
 - **b** 6, 7, 5, 2, 9, 4, 8
 - **c** 5, 4, 9, 6, 7, 3, 8

Page 58, Sharing Problems

- **1** \$9.50
- 2 8 shells each, with 2 shells left over
- 3 (challenge) 120 blocks

Page 59, Division Tables & Equivalent Fractions

- **1 a** 8, 3, 4, 9, 7, 6, 5
 - **b** 6, 9, 7, 8, 4, 5, 3
 - **c** 9, 6, 5, 8, 7, 4, 3
- 2 a $\frac{1}{4}, \frac{3}{12}$
 - **b** $\frac{1}{2}, \frac{2}{4}, \frac{3}{6}, \frac{6}{12}$
 - c $^{3}/_{4}$, $^{9}/_{12}$
 - **d** $\frac{5}{6}$, $\frac{10}{12}$
 - e 1/3, 2/6, 4/12

Page 60, Packages & Pizza

- 1 3 packages of muffins
- 2 10 packages of tennis balls (2 balls left)
- 3 (challenge) 21/4 pizzas

Use after Unit Four, Session 10

Page 61, Multiplying by 10, 100 & 1,000

1 50, 70, 400, 900

7,000; 6,000; 90; 5,000; 300

2 80; 40; 700; 500

3,000; 5,000; 1,000; 6

5, 8, 100, 10

(challenge) 1,000,000; 10; 100

Page 62, Money & Minutes

- 1 Brianna earns \$1,000 per month at her job. She used to make \$800 per month. If she works only for the months of June, July, and August, how much money will she make?
 - **a** Responses will vary. Example: *How much money will Brianna make in 3 months?*

b&c See above.

- **d** \$3,000
- 2 Jonah is 18 years old. It takes him 50 minutes to ride his bike to work and 50 minutes to ride his bike home every day. If he worked 6 days last week, how many minutes did he spend riding his bike to and from work?
 - **a** Responses will vary. Example: *How many minutes did Jonah spend riding his bike?*

b&c See above.

- **d** 600 minutes
- e (challenge) 10 hours

Page 63, Writing Improper Fractions as Mixed Numbers

- **1** 35; 350; 350, 3,500
 - 12; 120; 120; 1,200
 - 56; 560; 560, 5,600
- **2** 1, 1¹/₃, 1²/₃
 - 1, 1, $1^{6}/_{12}$ ($1^{1}/_{2}$ also acceptable)
 - 1, 2, 1²/₆, (1¹/₃ acceptable), 1³/₆ (1¹/₂ acceptable)

(challenge) 11/4, 2, 33/4, 9