

# Fairfield Public Schools



## Math Packet ANSWER KEY

For

Students Entering Third Grade



# Grade 2 Practice Book Answer Keys



## ANSWER KEY

### Use after Unit One, Session 12

#### Page 1, Numbers & Words, 11–20

1

eleven 11 11  
 twelve 12 12  
 thirteen 13 13  
 fourteen 14 14  
 fifteen 15 15  
 sixteen 16 16  
 seventeen 17 17  
 eighteen 18 18  
 nineteen 19 19  
 twenty 20 20

2 12, 14, 16

#### Page 2, Apples & Shapes

- 9 apples; students' work will vary.
- (challenge) Students' work will vary. Example:

$54 + 54 = 104$   
 $44 + 44 = 84$   
 $104 + 84 = 184$   
 $34 + 34 = 64$   
 $184 + 64 = 244$

#### Page 3, Adding & Subtracting 0's, 1's, & 2's

- 6, 5,  
7, 3, 4,  
5, 7, 6,  
6, 4, 8
- 2, 1,  
5, 3, 0,  
3, 5, 4,  
6, 2, 4

#### Page 4, Dollars & Dimes

- 4 dollars; students' work will vary.
- (challenge) 30 dimes; students' work will vary.

#### Page 5, Adding Doubles & Neighbors

- 0, 1, 2  
3, 4, 5  
6, 7, 8  
9, 10, 20
- a 5  
b 9  
c 8  
d 7  
e 10  
f 5  
g 9  
h 4

#### Page 6, Fish & Farm Problems

- 5 fish; students' work will vary.
- (challenge) 4 ducks and 2 sheep; students' work will vary.

#### Page 7, Number Lines & Counting Patterns

- No key necessary
- a 15, 16, 18  
b 30, 35, 40  
c 14, 20, 24, 26  
d 1, 7, 11, 13

#### Page 8, Baseball Cards & Darts

- 7 baseball cards; students' work will vary.
- (challenge) She could get 3, 4, 5, 6, 7, 8, 9, 10, or 12 points. (There are 2 different ways she could get 6 points.) Students' work will vary. Example:

1	2	4	Total
///			3 pts
//	✓		4 pts
//		✓	6 pts
✓	//		5 pts
✓		//	9 pts
✓	✓	✓	7 pts
	///		6 pts
	//	✓	8 pts
	✓	//	10 pts
		///	12 pts



## Use after Unit One, Session 12 (cont.)

## Page 9, Thinking about 2's

- 2, 3, 5, 6, 7, 8, 10  
11, 13, 14, 16, 17, 18, 19  
21, 22, 23, 25, 26, 28, 29, 30  
31, 32, 34, 35, 37, 39, 40
- 8, 12, 26, 14  
20, 32, 16, 10
- 6, 10, 14, 8  
26, 34, 22, 38
- a 18 antennae  
b 24 wings  
c 14 ears

## Page 10, Fish &amp; Money Problems

- 4 fish
- (challenge) Students' responses to 2d–g may be entered in a different order than on the chart below.

	Dimes	Nickels	Pennies
ex a	2	0	3
ex b	1	2	3
a	1	1	8
b	1	0	13
c	0	4	3
d	0	3	8
e	0	2	13
f	0	1	18
g	0	0	23

## Page 11, Fact Families: 6's

- a  $2 + 4 = 6$   
b  $5 + 1 = 6$   
c  $2 + 2 + 2 = 6$
- a   
b   
c
- 3 6, 3, 0, 4  
2, 5, 3, 1  
1, 2, 0, 4
- 4 4, 1, 3, 2  
3, 6, 4, 0

## Page 12, Crayons &amp; Coins

- 12 crayons; students' work will vary.
- (challenge) 3 nickels and 2 dimes; students' work will vary.

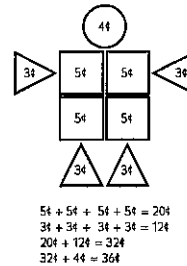
## Use after Unit One, Session 23

## Page 13, Dominoes &amp; Counting Patterns

- $3 + 4, 5 + 4, 5 + 5, 4 + 4$
- 4, 3, 6 + 6, 4
- Students' responses will vary.
- a 28, 30, 32  
b 33, 35  
c 13, 9  
d 39, 37

## Page 14, Fish &amp; Pictures

- 5 red fish; students' work will vary.
- (challenge) Students' work will vary. Example:



## Page 15, Numbers &amp; Coins

Note: There is no match for 70¢.

ex		20¢	10 ten
1		40¢	20 twenty
2		80¢	30 thirty
3		40¢	40 forty
4		60¢	50 fifty
5		50¢	60 sixty
6		30¢	70 seventy
			80 eighty



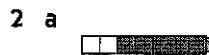
## Use after Unit One, Session 23 (cont.)

### Page 16, Blocks & Apples

- 13 blocks; students' work will vary.
- (challenge) \$1.25; students' work will vary.

### Page 17, Fact Families: 7's

- $3 + 4 = 7$
  - $1 + 6 = 7$
  - $4 + 3 = 7$



- 7, 4, 1, 5  
3, 6, 4, 2  
2, 3, 0, 6
- 4, 2, 1, 3

### Page 18, Pennies, Bikes, & Trikes

- 9 pennies; students' work will vary.
- (challenge) 2 bikes and 5 trikes; students' work will vary.

### Page 19, Fingers & Toes

- 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70
- 25, 40, 15, 5, 10, 50, 30  
10, 25, 20, 0, 45, 15, 5
- 25 toes
  - 30 fingers
  - 20 toes
  - 45 fingers
  - (challenge) 9 feet
  - (challenge) 7 hands

### Page 20, Inchworm's Garden

	From	To	How Many Inches?
1			3 inches
2			4 inches
3			2 inches
4			2 inches
5			3 inches
6			5 inches

### Page 21, Thinking about 5's

- 1, 3, 4, 5, 7, 8, 9  
12, 13, 15, 16, 17, 19, 20  
21, 22, 24, 25, 26, 27, 28, 30  
31, 32, 33, 34, 36, 38, 39, 40  
41, 43, 44, 45, 46, 47, 48, 49
- 10, 20, 26, 39
- 15, 10, 30, 45
- 45, 50, 60, 70, 80, 85, 95
- 21, 26, 31, 36

### Page 22, Shells & Coins

- 7 shells; students' work will vary.
- (challenge) A dime, a nickel, and 3 pennies; students' work will vary.

### Page 23, Fact Families: 8's

- $4 + 4 = 8$
  - $6 + 2 = 8$
  - $1 + 7 = 8$



- 8, 5, 2, 6  
4, 7, 5, 2  
3, 4, 1, 2
- 5, 4, 1, 6

### Page 24, Inchworm's Paths

- Students' responses will vary.
- 6 inches
  - 7 inches
  - 8 inches
- Path A is the shortest.
- Path C is the longest.
- (challenge) Students' work will vary. The shortest path is around  $5\frac{1}{2}$  inches, so responses of 5 or 6 inches are acceptable.



### Use after Unit Two, Session 10

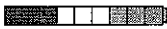


#### Page 25, Ella's Piggy Bank

- 1 dimes
- 2 nickels
- 3 two
- 4 87¢
- 5 (challenge) 13¢; students' work will vary.

#### Page 26, Pets & Coins

- 1 16 pets; students' work will vary.
- 2 (challenge) 4 nickels and 2 dimes; students' work will vary.

#### Page 27, Fact Families: 9's

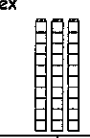

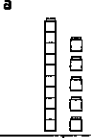

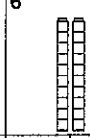

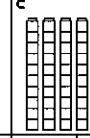

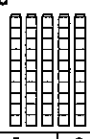

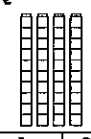

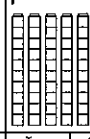

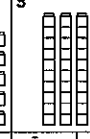
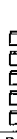
- 1 a  $5 + 4 = 9$   
b  $2 + 7 = 9$   
c  $8 + 1 = 9$
- 2 a   
b   
c 
- 3 9, 5, 0, 7  
5, 8, 3, 1  
4, 6, 2, 3
- 4 5, 3, 2, 1

#### Page 28, Fish Problems

- 1 7 are red; students' work will vary.
- 2 (challenge) 8 yellow fish and 4 red fish; students' work will vary.

#### Page 29, Cubes on a Line

1

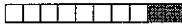

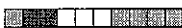
ex		a		b		c	
							
Tens	Ones	Tens	Ones	Tens	Ones	Tens	Ones
3	0	1	5	2	0	5	5
d		e		f		g	
							
Tens	Ones	Tens	Ones	Tens	Ones	Tens	Ones
6	0	4	5	6	5	3	5

- 2 15, 20, 30, 35, 45, 55, 60, 65
- 3 30, 15, 38, 46, 60, 20, 30

#### Page 30, Ant Paths

- 1 a 12 cm  
b 7 cm  
c 6 cm
- 2 a Path A: 13 cm; Path B: 12 cm; Path C: 15 cm  
b Students' responses will vary. Example: *I would use Path B because it's the shortest and I don't have to make any turns.*

#### Page 31, Fact Families: 10's

- 1 a  $7 + 3$   
b  $4 + 6$   
c  $2 + 8$
- 2 a   
b   
c 
- 3 10, 7, 1, 8  
6, 9, 5, 2  
5, 4, 3, 0
- 4 5, 3, 4, 9

#### Page 32, Ant Story Problems

- 1 6 ants are working hard. Some more come to help.  
Now there are 13 ants. **How many ants came to help?**  
7 ants came to help; students' work will vary.
- 2 There are 7 ants at the top of the tunnel. There are 4 ants in the middle chamber. There are 5 ants in the lower chamber. **How many ants in all?**  
There are 16 ants in all; students' work will vary.
- 3 There are 6 ants. Each ant has 3 seeds. **How many seeds in all?**  
There are 18 seeds in all; students' work will vary.



## Use after Unit Two, Session 10 (cont.)

## Page 33, Triangle Fact Families

**example**

$3 + 6 = 9$   $9 - 6 = 3$   
 $6 + 3 = 9$   $9 - 3 = 6$

**1**

$2 + 7 = 9$   $9 - 2 = 7$   
 $7 + 2 = 9$   $9 - 7 = 2$

**2**

$8 + 2 = 10$   $10 - 8 = 2$   
 $2 + 8 = 10$   $10 - 2 = 8$

**3**

$6 + 4 = 10$   $10 - 6 = 4$   
 $4 + 6 = 10$   $10 - 4 = 6$

**4**

$7 + 3 = 10$   $10 - 7 = 3$   
 $3 + 7 = 10$   $10 - 3 = 7$

## Page 34, T-Shirts &amp; Turtles

- \$9.00; students' work will vary.
- (challenge) 26 legs; students work will vary.

## Page 35, All about Tens

- 6 and 4 should be circled
  - 7 and 3 should be circled
  - 2 and 8 should be circled
- $8 + 2 = 10$ ,  $2 + 8 = 10$ ,  $10 - 8 = 2$ ,  $10 - 2 = 8$
  - $3 + 7 = 10$ ,  $7 + 3 = 10$ ,  $10 - 3 = 7$ ,  $10 - 7 = 3$
  - $1 + 9 = 10$ ,  $9 + 1 = 10$ ,  $10 - 1 = 9$ ,  $10 - 9 = 1$
- 3, 5, 4, 7, 6, 1, 8
- 7, 5, 10, 1  
3, 2, 4, 10

## Page 36, Dollars &amp; Quarters

- 7 more dollars; students' work will vary.
- (challenge) 20 quarters; students' work will vary.

## Use after Unit Three, Session 12

## Page 37, Facts to 8

- 8, 7, 8, 3, 8, 6, 7  
5, 8, 8, 8, 7, 8, 4  
7, 8, 8, 6

- 2, 8, 4, 7, 4, 3, 2  
6, 5, 0, 1, 5, 2, 3  
1, 3, 3, 1
- 2 and 4 (1, 2, and 3 is another solution.)
  - 3 and 4 (1, 2, and 4 is another solution.)
  - 1, 3, and 4
  - 2, 3, and 4
  - 1, 2, 3, and 4

## Page 38, Flowers &amp; Oranges

- 5 flowers; students' work will vary.
- (challenge) 32 orange slices; students work will vary.

## Page 39, Telling Time on Two Kinds of Clocks

- 3:00
  - 9:30
  - 7:00
  - 4:30

2 a



b



c



d



## Page 40, Ladybug Story Problems

- 10 ladybugs were sitting on a leaf. A bird came and chased 4 of them away. **How many ladybugs were left?**  
6 ladybugs were left; students' work will vary.
- There are 4 ladybugs on the leaf. **How many legs in all?** (Ladybugs have 6 legs.)  
There are 24 legs in all; students' work will vary.
- There were 5 ladybugs on a leaf. Some more ladybugs came. Then there were 12 ladybugs on the leaf. **How many ladybugs came?**  
7 ladybugs came; students' work will vary.



## Use after Unit Three, Session 12 (cont.)

## Page 41, Facts to 9

- 1 9, 8, 9, 4, 9, 7, 8  
9, 7, 9, 8, 9, 8, 8  
7, 9, 8, 9
- 2 3, 9, 4, 8, 4, 4, 5  
7, 5, 1, 0, 6, 2, 2  
5, 3, 2, 1
- 3 a 2 and 4  
b 3 and 4  
c 8  
d 2, 3, and 4  
e 2 and 8

## Page 42, Cookies &amp; Apples

- 1 8 cookies; students' work will vary.  
2 (challenge) 60 seeds; students' work will vary.

## Page 43, Number Patterns

- 1 a–d

1	2	3	4	5	6	7	8	9
11	12	13	14	15	16	17	18	19
21	22	23	24	25	26	27	28	29
31	32	33	34	35	36	37	38	39
41	42	43	44	45	46	47	48	49
51	52	53	54	55	56	57	58	59
61	62	63	64	65	66	67	68	69
71	72	73	74	75	76	77	78	79
81	82	83	84	85	86	87	88	89
91	92	93	94	95	96	97	98	99

- 2 14, 17, 40, 51, 62, 78

## Page 44, Measuring Ladybug Paths

- 1 a Bug A: 13 cm  
b Bug B: 9 cm  
c Bug C: 7 cm  
d Bug D: 5 cm
- 2 Bug A  
3 4 cm  
4 8 cm  
5 34 cm; students' number sentences will vary.  
6 Students' paths and measurements may vary slightly. 12 cm give or take a cm either way is acceptable.

## Page 45, Facts to 10

- 1 10, 9, 10, 5, 10, 8, 9  
10, 7, 10, 9, 10, 8, 7  
9, 10, 10
- 2 4, 10, 4, 9, 6, 5, 5  
8, 4, 2, 3, 7, 0, 2  
6, 4, 1, 3
- 3 a 3 and 3  
b 2, 2, and 3  
c 2, 3, and 3  
d impossible  
e 2, 2, 3, and 3

## Page 46, Snacks

- 1 15 granola bars; students' work will vary.  
2 (challenge) 65¢; students' work will vary.

## Page 47, Addition &amp; Subtraction Tables

- 1 a

+	2	3	4	5	6	7
1	3	4	5	6	7	8
2	4	5	6	7	8	9
3	5	6	7	8	9	10
4	6	7	8	9	10	11
5	7	8	9	10	11	12
6	8	9	10	11	12	13

- b

+	3	4	5	6	7	8
3	6	7	8	9	10	11
4	7	8	9	10	11	12
5	8	9	10	11	12	13
6	9	10	11	12	13	14
7	10	11	12	13	14	15
8	11	12	13	14	15	16

- 2 a

0	1	2	3	4	5	–
0	1	2	3	4	5	0
	0	1	2	3	4	1
		0	1	2	3	2
			0	1	2	3
				0	1	4
					0	5



Use after Unit Three, Session 12 (cont.)

Page 47, Addition & Subtraction Tables (cont.)

2 b

6	7	8	9	10	11	-
6	7	8	9	10	11	0
	6	7	8	9	10	1
		6	7	8	9	2
			6	7	8	3
				6	7	4
					6	5

Page 48, Comparing Numbers to 100

- 47 < 51
- 18 < 23
- 36 > 29
- 71 > 17
- 34 = 34

Use after Unit Three, Session 24

Page 49, Missing Numbers

- 10, 8, 4  
7, 8, 9  
6, 1, 3  
12, 16, 14  
10, 8, 8
- a 20, 30, 35  
b 45, 55, 60  
c 28, 38, 43  
d 29, 44  
e 20, 10, 5  
f 17, 7, 2
- a (challenge) 128, 118, 108, 103; Backward  
b (challenge) 347, 362, 367, 377; Forward  
c (challenge) 503, 508, 518, 523, 528; Forward  
d (challenge) 252, 247, 242, 232, 222; Backward

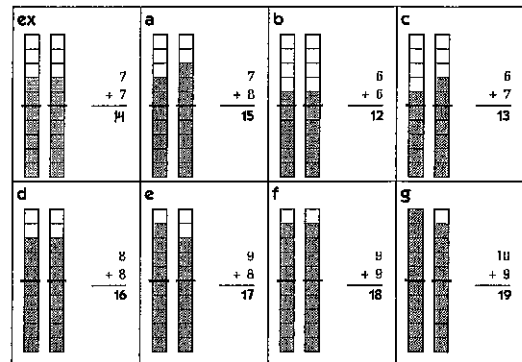
Page 50, Beads & Patterns

- a 8 red beads; students' work will vary.  
b Students' responses will vary. Example:  
●●○○○○●○○○○●○○○○●
- a (challenge) 25, 31, 37  
b (challenge) 22, 27, 32, 42, 47  
c (challenge) 10, 5, 0  
d (challenge) 8, 4, 0

- e (challenge) 16, 22, 37, 56  
f (challenge) 16, 32, 64, 256, 512

Page 51, Doubles & Neighbors

1



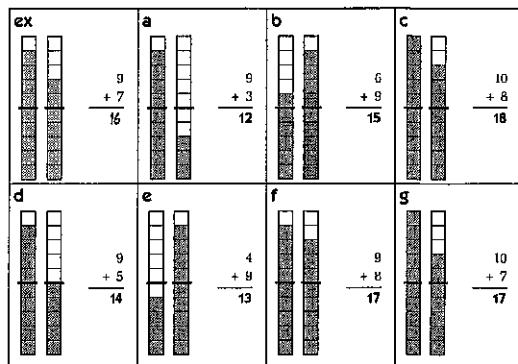
- 5, 6, 4, 5, 3, 4, 2  
7, 8, 6, 7, 8, 9, 9

Page 52, The Gym Teacher & Jason at the School Store

- a 7 more soccer balls; students' work will vary.  
b 23 soccer balls and footballs; students' work will vary.
- (challenge) Students' responses will vary. Examples:
  - 2 markers and 1 eraser (25¢ + 25¢ + 10¢ = 60¢)
  - 3 pencils (20¢ + 20¢ + 20¢ = 60¢)
  - 1 marker, 1 pencil, and 1 folder (25¢ + 20¢ + 15¢ = 60¢)
  - 1 tablet, 1 eraser, and 1 pencil (30¢ + 10¢ + 20¢ = 60¢)

Page 53, Fast Nines & Fast Tens

1







## Use after Unit Three, Session 24 (cont.)

### Page 53, Fast Nines & Fast Tens

- 2 6, 7, 2, 3, 5, 6, 8  
9, 4, 5, 3, 4, 7, 8

### Page 54, Baseball Cards & Teri at the School Store

- 1 Andre has 1 more baseball card than James.  
Students' work will vary.
- 2 (challenge) Students' responses will vary. Examples:
- 2 markers and 1 pencil ( $25¢ + 25¢ + 20¢ = 70¢$ )
  - 2 tablets and 1 eraser ( $30¢ + 30¢ + 10¢ = 70¢$ )
  - 2 pencils and 1 tablet ( $20¢ + 20¢ + 30¢ = 70¢$ )
  - 1 marker, 1 tablet and 1 folder ( $25¢ + 30¢ + 15¢ = 70¢$ )
  - 3 folders and 1 marker ( $15¢ + 15¢ + 15¢ + 25¢ = 70¢$ )
  - 3 pencils and 1 eraser ( $20¢ + 20¢ + 20¢ + 10¢ = 70¢$ )

### Page 55, Scout Them Out Add & Subtract

- 1 a +2 facts are underlined.  
b +10 facts are not underlined.  
8, 11, 10, 7, 9, 19, 6  
14, 17, 10, 4, 13, 16, 13
- 2 a -2 facts are underlined.  
b -10 facts are not underlined.  
8, 4, 4, 7, 2, 9, 5  
11, 7, 2, 6, 12, 8, 9  
13, 10, 3, 6, 1, 10, 1
- 3 a T  
b F  
c T  
d F  
e T  
f T

### Page 56, Extra Facts

- 1 Neena bought 7 red apples, 8 green apples, and 3 yellow apples. ~~Neena is 12 years old.~~ How many apples did Neena buy?  
18 apples; students' work will vary.
- 2 Pedro had 15 dollars. He spent 9 dollars on a book. ~~His friend had 12 dollars.~~ How much money did Pedro have left?  
6 dollars; students' work will vary.

- 3 The gym teacher had 16 soccer balls. ~~She had 14 footballs.~~ She gave 8 of the soccer balls to the playground helper. How many soccer balls did she have left?

8 soccer balls; students' work will vary.

- 4 (challenge) The ladybug ate 28 aphids in the morning. ~~Then she took a nap on a leaf for 3 hours.~~ She ate 34 aphids in the afternoon. How many aphids did she eat in all?

62 aphids; students' work will vary.

### Page 57, Make Ten Facts

- 1 a Make 10 facts are underlined.  
b Other facts are not underlined.  
10, 7, 11, 10, 7, 10, 8  
9, 10, 10, 9, 9, 8, 10  
7, 10, 10, 10, 10, 4, 9
- 2 Students' work will vary.
- a 18  
b 17  
c 20  
d 16  
e 26  
f 20

### Page 58, A.M. or P.M.?

- 1 a 6:00 p.m.  
b 7:00 a.m.  
c 5:00 p.m.  
d 4:00 p.m.  
e 8:30 p.m.  
f 3:30 p.m.
- 2 Students' responses will vary.

### Page 59, More Scout Them Outs

- 1 a Doubles are underlined.  
b Neighbors are not underlined.  
4, 5, 10, 11, 7, 8, 12  
11, 13, 14, 15, 18, 19, 22  
6, 7, 16, 24, 25, 26, 27
- 2 a Half Facts are underlined.  
b Take away Tens are not underlined.  
5, 5, 3, 9, 3, 7, 2  
8, 10, 6, 20, 30, 50, 40



Use after Unit Three, Session 24 (cont.)

Page 59, More Scout Them Outs (cont.)

- 3 a T
- b T
- c F
- d F
- e F
- f T

Page 60, Numbers & Words

- 1 No answer key necessary.
- 2 a Sixty-nine
- b Forty-seven
- c One hundred seventy-six

Use after Unit Four, Session 12

Page 61, Mystery Shapes

- 1 Rectangular prism
- 2 Sphere
- 3 Pyramid
- 4 Cylinder
- 5 Triangular prism
- 6 Cube

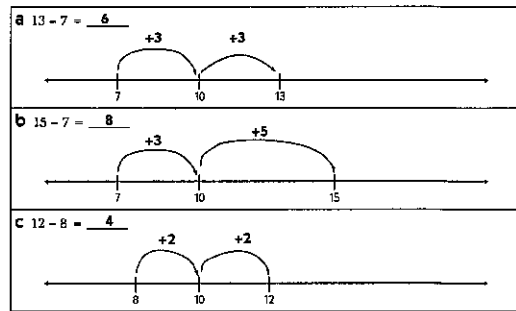
Page 62, More Extra Facts Practice

- 1 ~~Nick has 3 cats.~~ He had 12 fish. He gave 4 of the fish to his friend. How many fish does he have left? He has 8 fish left. Students' work will vary.
- 2 ~~Lin's big sister is 15.~~ She listened to 8 songs on her CD player in the morning. She listened to 9 more songs that night. How many songs did she listen to in all? Lin's big sister listened to 17 songs in all. Students' work will vary.
- 3 Amber made 9 cupcakes. Then she made 12 more cupcakes. ~~It took 2 cups of sugar to make the frosting.~~ How many cupcakes did she make in all? Amber made 21 cupcakes in all. Students' work will vary.
- 4 (challenge) The Green Dragon had 250 gold pieces. ~~He is 10 feet tall.~~ He is mad because the trolls took 60 of his gold pieces. How many gold pieces does he have left? The Green Dragon has 190 gold pieces left. Students' work will vary.

Page 63, More Make Ten Facts

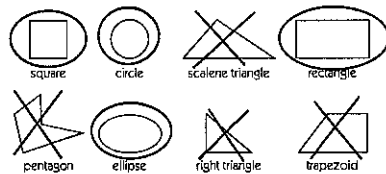
- 1 a Make 10 facts are underlined.
- b Other facts are not underlined.  
 $\underline{10}$ , 12,  $\underline{10}$ , 14,  $\underline{10}$ ,  $\underline{10}$ , 9  
 13,  $\underline{10}$ , 16, 15,  $\underline{10}$ , 18,  $\underline{10}$   
 20,  $\underline{10}$ ,  $\underline{10}$ , 5, 7,  $\underline{10}$ , 19
- 2 Students' work will vary.
- a 20
- b 14
- c 29
- d 22
- 3 4, 2, 5, 7  
 1, 9, 6, 8

Page 64, Using Make Ten Facts to Help Subtract

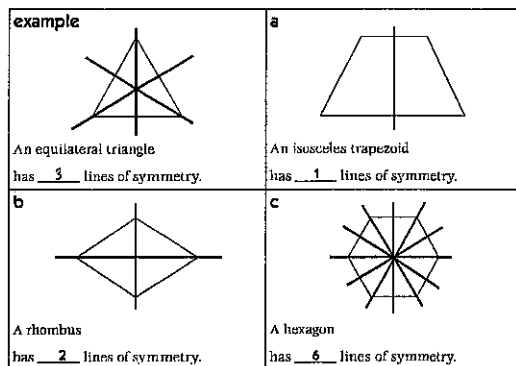


Page 65, Symmetry

1 a & b



2





## Use after Unit Four, Session 12 (cont.)

### Page 66, The Shapes Shop

- 10¢
  - 4¢
  - 5¢
- 74¢; students' work will vary.
- Students' responses will vary.

### Page 67, Thinking about Place Value

- No answer key necessary
- Two hundred eight
  - One hundred fourteen
  - Two hundred sixteen

### Page 68, Two Different Ways to Write Money Amounts

- 30¢ or \$0.30
  - 60¢ or \$0.60
  - 71¢ or \$0.71
- Dime, 10¢ or \$0.10, students' responses will vary
  - Quarter, 25¢ or \$0.25, students' responses will vary

### Page 69, Subtraction Strategies

- Subtract 2's are underlined
  - Subtract Halves are circled
  - Takeway 10's are in bold font
  - Runaway 1's are in italic
  - Any facts that don't fit one of the four types listed in a-d are shown in regular font.

$$\underline{13}, 8, 10, \underline{8}, \underline{7}, 6, 10$$

$$10, 9, 9, 7, \underline{9}, \underline{8}, 10, 17$$

$$\underline{9}, \underline{5}, 14, 9, \underline{11}, 10, 6$$

$$7, 4, \underline{2}, 6, 6, 3, \underline{10}$$

$$\underline{60}, 73, \underline{70}, \underline{80}, \underline{27}, \underline{90}, 40$$

### Page 70, Sara's Pockets

- 2 nickels and 2 dimes; students' work will vary.
- 1 dime, 2 nickels, and 4 pennies; students work will vary.

### Page 71, Halves

- First choice
  - Second choice
  - Third choice
- 5, 8, 10, 6, 7, 9, 3  
20, 30, 12, 15, 40, 50, 11  
200, 300, 100, 60, 90, 80, 70

### Page 72, Comparing Numbers to 300

- $244 > 229$
  - $183 < 209$
- 67, 107, 113, 204, 261

## Use after Unit Four, Session 25

### Page 73, Fact Family Triangles

example		
	$4 + 9 = 13$	$9 + 4 = 13$
	$13 - 4 = 9$	$13 - 9 = 4$
1		
	$5 + 7 = 12$	$7 + 5 = 12$
	$12 - 5 = 7$	$12 - 7 = 5$
2		
	$9 + 6 = 15$	$6 + 9 = 15$
	$15 - 9 = 6$	$15 - 6 = 9$
3		
	$6 + 5 = 11$	$5 + 6 = 11$
	$11 - 6 = 5$	$11 - 5 = 6$
4		
	$6 + 8 = 14$	$8 + 6 = 14$
	$14 - 6 = 8$	$14 - 8 = 6$

### Page 74, Bowls & Vans

- 4 little fishbowls; students' work will vary.
- (challenge) 6 vans; students' work will vary.

### Page 75, Puzzles about Ten & More

- 10
  - 4
  - 8
  - 3
  - 6
  - 3
  - 2
  - 3
- 10, 3, 5  
10, 7, 6  
5, 4, 7
- (challenge) 40, 5, 127



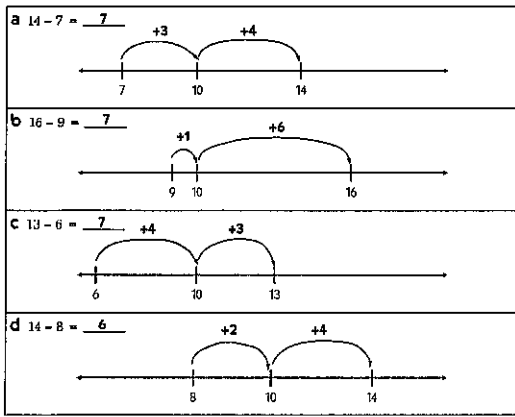
Use after Unit Four, Session 25 (cont.)

Page 76, Another Trip to the Shapes Shop

- The shape picture costs 55¢. Any coin combination worth 55¢ is acceptable. Examples: 2 quarters and 1 nickel; 1 quarter, two dimes, two nickels; or 2 quarters and 5 pennies.
- Students' responses will vary.

Page 77, Make Tens to Subtract

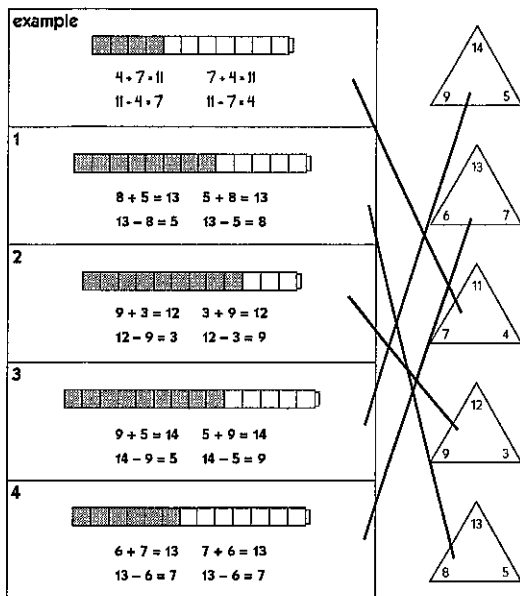
1



Page 78, Books & Granola Bars

- 15 books; students' work will vary.
- a (challenge) 50¢; students' work will vary.  
b (challenge) \$1.00; students' work will vary.  
c (challenge) \$2.50; students' work will vary.

Page 79, More Fact Family Triangles



Page 80, Ants & the Number Box

- a 20; students' work will vary.  
b 10; students' work will vary.
- a (challenge) 4 and 17 or 18 and 3 or 5 and 16 or 11 and 10  
b (challenge) 18 and 11 or 23 and 6 or 12 and 17  
c (challenge) 16 and 6  
d (challenge) 17 and 3 or 18 and 4  
e (challenge) 3, 4, 5, and 6

Page 81, Adding & Subtracting Tens

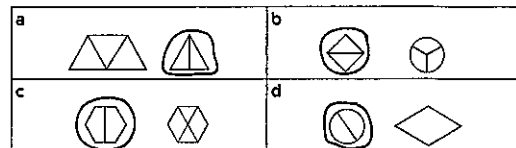
- 60, 48, 55, 76, 89, 63, 36  
29, 31, 91, 47, 50, 82, 37
- 65, 45, 32, 89, 77, 8, 11  
37, 4, 41, 29, 18, 67, 84

Page 82, Apples & Snow People

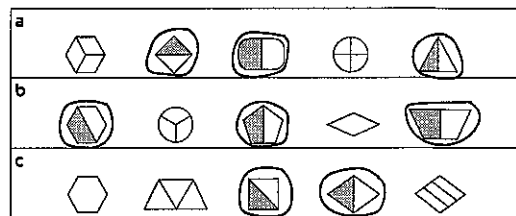
- 35 seeds; students' work will vary.
- (challenge) 84 stones; students' work will vary.

Page 83, Half & Half

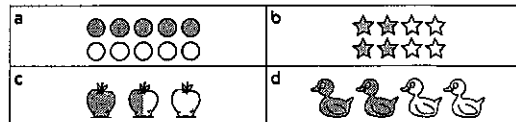
1



2



3 Students' work will vary. Examples:



Page 84, Sharing Stories

- 8 shells; students' work will vary.
- (challenge) 7 marbles; students' work will vary.



## Use after Unit Five, Session 17

### Page 85, Missing Numbers

1

<b>example</b> 		$5 + 7 = 12$ $7 + 5 = 12$ $12 - 5 = 7$ $12 - 7 = 5$
<b>a</b> 		$4 + 8 = 12$ $8 + 4 = 12$ $12 - 4 = 8$ $12 - 8 = 4$
<b>b</b> 		$9 + 6 = 15$ $6 + 9 = 15$ $15 - 9 = 6$ $15 - 6 = 9$
<b>c</b> 		$8 + 7 = 15$ $7 + 8 = 15$ $15 - 8 = 7$ $15 - 7 = 8$

- 2 16, 9, 6  
5, 5, 8  
3 (challenge) 81, 19, 38

### Page 86, Pet Shop Equations

1

<b>a</b> The pet shop owner had 14 hamsters. She sold 5 of them on Monday and 3 of them on Tuesday. How many hamsters does she have left?	$9 - 2 + 8 = 15$
<b>b</b> There were 12 puppies in the pen. The pet shop owner sold some of them. Now there are 7 puppies in the pen. How many puppies did she sell?	$14 - 5 - 3 = 6$
<b>c</b> The pet shop owner got 9 rabbits yesterday. A family came in and bought 2 of them. Then the shop owner got 8 more rabbits. How many rabbits does she have now?	$6 + 7 = 13$
<b>d</b> There were 16 fish in the big tank. The shop owner moved some of them. Now there are only 9 fish in the big tank. How many did the shop owner move?	$12 - 5 = 7$
<b>e</b> The shop owner had 6 kittens. Then she got some more kittens. Now she has 13 kittens. How many kittens did she get?	$16 - 7 = 9$

- 2 (challenge)  
11, 15  
54, 16  
25, 300  
324, 23  
53, 474

### Page 87, Tens & Ones

1

<b>example</b> 	10's   1's
	3   6
Equation	
	$30 + 6 = 36$
<b>a</b> 	10's   1's
	5   2
Equation	
	$50 + 2 = 52$
<b>b</b> 	10's   1's
	7   1
Equation	
	$70 + 1 = 71$
<b>c</b> 	10's   1's
	7   0
Equation	
	$70 + 0 = 70$
<b>d</b> 	10's   1's
	4   7
Equation	
	$40 + 7 = 47$

2

<b>example</b> 	Dimes   Pennies
	2   1
Equation	
	$20¢ + 1¢ = 21¢$
<b>a</b> 	Dimes   Pennies
	3   2
Equation	
	$30¢ + 2¢ = 32¢$
<b>b</b> 	Dimes   Pennies
	5   1
Equation	
	$50¢ + 1¢ = 51¢$
<b>c</b> 	Dimes   Pennies
	7   5
Equation	
	$70¢ + 5¢ = 75¢$
<b>d</b> 	Dimes   Pennies
	1   5
Equation	
	$10¢ + 5¢ = 15¢$

### Page 88, Nuts & Carrots

- 1 37 nuts; students' work will vary.  
2 (challenge) 21 carrots; students' work will vary.

### Page 89, Different Ways to Look at 300

- 1 a 3 hundreds  
b 30 tens  
c 300 ones  
2 30 groups of 10 labeled 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and 300. Students' work will vary.

### Page 90, Different Ways to Look at the Same Number

- 1 3 hundreds, 31 tens, 310 ones  
2 3 hundreds, 35 tens, 350 ones  
3 2 hundreds, 23 tens, 230 ones  
4 2 hundreds, 29 tens, 290 ones

### Page 91, Time & Money Problems

- 1 a 2 quarters, 1 nickel, and 1 penny  
b 2 quarters, 1 dime, 1 nickel, and 1 penny  
c 1 quarter and 4 pennies  
d (challenge) 5 quarters, 1 nickel, and 4 pennies



## Use after Unit Five, Session 17 (cont.)

### Page 91, Time & Money Problems (cont.)

- 2 a 6:15  
b 3:30  
c 2:15

3 a



b



c



### Page 92, Hundreds, Tens & Ones

- 1 a 2 hundreds, 24 tens, 247 ones  
b 3 hundreds, 31 tens, 318 ones

2

a 5 hundreds + 2 tens + 9 ones	→	420 ones
b 42 tens	→	52 tens + 9 ones
c 30 tens + 9 ones	→	2 hundreds + 14 tens + 9 ones
d 3 hundreds + 49 ones	→	1 hundred + 20 tens + 9 ones

### Page 93, Shopping & the Number Box

- 1 10¢; students' work will vary.  
2 a (challenge) 32 and 8  
b (challenge) 15 and 3  
c (challenge) 10 and 8  
d (challenge) 20 and 32 or 15 and 3 or 20 and 8  
e (challenge) 20, 24, and 32  
f (challenge) 76; students' work will vary.

### Page 94, Base Ten Addition

- 1 38  
2 42  
3 51  
4 51  
5 39  
6 53  
7 41  
8 54  
9 39  
10 32

### Page 95, Shopping Problems

- 1 72¢, students' work will vary.  
2 (challenge) 4 apples, students' work will vary.

### Page 96, Base Ten Subtraction

- 1 16  
2 20  
3 17  
4 8  
5 25  
6 15  
7 14  
8 12  
9 15

### Page 97, Coin Problems

- 1 63¢; students' work will vary.  
2 (challenge) 14¢ each; students' work will vary.

## Use after Unit Five, Session 35

### Page 98, Adding & Subtracting Tens & Nines

- 1 50, 49, 65, 64, 88, 87, 87  
26, 25, 82, 81, 54, 53, 76  
2 20, 21, 36, 37, 71, 72, 23  
25, 26, 19, 20, 65, 66, 28  
3 a 4:15  
b 1:45  
c 7:30  
d 10:15

### Page 99, Wheels

- 1 44 wheels; students' work will vary.  
2 (challenge) first solution: 6 wagons and 1 trike,  
second solution: 3 wagons and 5 trikes

### Page 100, Place Value Practice

- 1 a  $32 = 30 + 2$   
b  $75 = 70 + 5$   
c  $18 = 10 + 8$   
d  $74 = 70 + 4$   
e  $28 = 20 + 8$   
f  $93 = 90 + 3$   
g  $45 = 40 + 5$   
h  $67 = 60 + 7$



## Use after Unit Five, Session 35 (cont.)

## Page 100, Place Value Practice (cont.)

- 2 68, 23, 59  
85, 57, 28  
74, 63, 69  
49, 76, 37, 54, 91, 55, 82
- 3 a Hundreds place  
b Tens place  
c Ones place  
d Hundreds place

## Page 101, Pencil Puppy &amp; Pal

- 1 a 64  
b 73
- 2 a 35  
b 47
- 3 72 pencils; students' work will vary.

## Page 102, 2-Digit Addition

- 1 a 62  
b 53
- 2 a  $40 + 30 = 70$ ,  $8 + 4 = 12$ ,  $70 + 12 = 82$   
b  $50 + 20 = 70$ ,  $8 + 8 = 16$ ,  $70 + 16 = 86$   
c  $20 + 60 = 80$ ,  $5 + 9 = 14$ ,  $80 + 14 = 94$   
d  $30 + 50 = 80$ ,  $4 + 9 = 13$ ,  $80 + 13 = 93$   
e  $40 + 40 = 80$ ,  $5 + 6 = 11$ ,  $80 + 11 = 91$

## Page 103, More Facts Than You Need

- 1 ~~Akiko has 27 marbles.~~ Sara has 53 marbles. Sam has 24 marbles. How many marbles do Sara and Sam have in all?  
77 marbles; students' work will vary.
- 2 ~~Jenny has 12 toy people. She is building a house for them.~~ She used 12 blocks for the front gate, and 48 blocks for the rest of the house. How many blocks did Jenny use in all?  
60 blocks; students' work will vary.
- 3 Juan had 56 crayons. He gave 23 of his crayons to his friend. ~~Juan also gave his friend 15 marking pens.~~ How many crayons does Juan have left?  
33 crayons; students' work will vary.
- 4 (challenge) The Toy Factory made 90 robots on Tuesday. ~~23 people work at the factory.~~ They sold 54 of the robots on Wednesday. How many robots did they have left?  
36 robots; students' work will vary.

## Page 104, Numbers &amp; Clocks

- 1 a  $300 + 40 + 2$   
b  $200 + 70 + 3$   
c  $200 + 20 + 9$   
d  $400 + 60 + 1$   
e  $600 + 10 + 8$   
f  $157 = 100 + 50 + 7$   
g  $999 = 900 + 90 + 9$   
h  $835 = 800 + 30 + 5$
- 2 138, 229, 273, 342, 461, 618

3 a



b



c



d

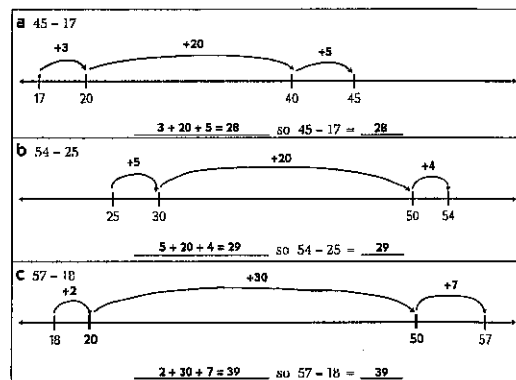


## Page 105, Sam's Hot Dog Stand

- 1 a Saturday  
b Thursday  
c 288 hotdogs
- 2 a  $325 > 108$   
b  $108 < 119$   
c  $234 > 164$   
d  $163 < 345$   
e  $325 > 234$
- 3 108, 119, 125, 163, 234, 325, 345
- 4 (challenge) 1,419 hotdogs; students' work will vary.

## Page 106, 2-Digit Subtraction

- 1 c Note students' work on number line will vary. See example below.





**Use after Unit Five, Session 35 (cont.)**

**Page 107, The Pet Graph**

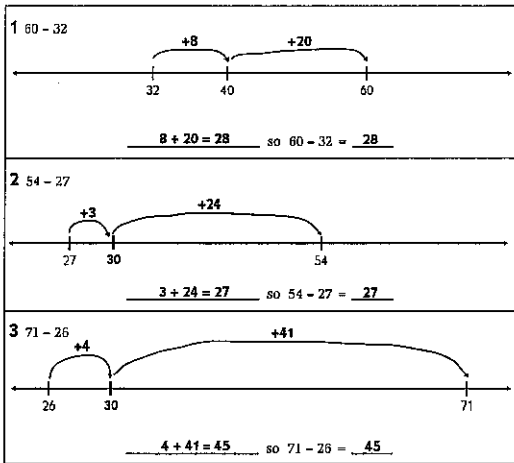
- 1 a Dogs
- b 7 kids
- c 6 kids
- d  $5 + 2 + 8 + 12 = 27$  kids
- 2 a 9 kids; students' work will vary.
- b 17 kids; students' work will vary.

**Page 108, More 2-Digit Addition**

- 1 a 41
- b 48
- 2 78, 47, 46, 33
- 3 a  $70 + 12 = 82$
- b  $60 + 12 = 72$
- c  $30 + 8 = 38$
- d  $80 + 10 = 90$
- e  $80 + 11 = 91$

**Page 109, More 2-Digit Subtraction**

- 2 & 3 Note students' work on number line will vary.  
Example shown below.



**Use after Unit Six, Session 13**

**Page 110, Which Makes the Most Sense?**

- 1 a 60
- b 50
- c 90 Students' explanations will vary. Example:  
 $40 + 30$  is 70 and  $9 + 9$  is 18. That's almost up to 90.
- d 60 Students' explanations will vary. Example:  
 $30 + 20$  is 50 and  $7 + 4 = 11$ . That's just one more than 60 if you add them up.

- 2 a 15
- b 30
- c 25 Students' explanations will vary. Example:  
 $50 - 24$  is almost like  $50 - 25$ , and the answer to that is 25.
- d 30 Students' explanations will vary. Example:  
 $60 - 29$  is almost like  $60 - 30$ , and the answer to that is 30.

**Page 111, Estimation Problems**

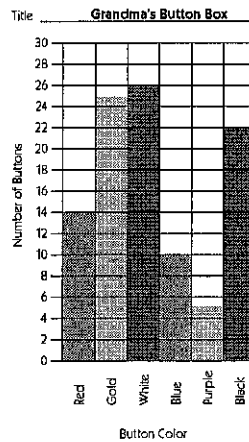
- 1 \$17.00
- 2 \$20.00
- 3 30 squares
- 4 35 books
- 5 300 cans

**Page 112, Adding & Subtracting Practice**

- 1 15, 18, 17, 16, 16, 19, 13  
 12, 17, 20, 17, 14, 14, 11  
 29, 52, 38, 75, 47, 98, 94  
 49, 52, 88, 82, 79, 93, 85
- 2 6, 7, 3, 4, 8, 9, 10  
 40, 20, 20, 20, 40, 50, 20  
 16, 25, 58, 34, 15, 18, 38

**Page 113, Grandma's Button Box**

- 1 Students' graph titles and graph marking methods will vary. Example:



- 2 102 buttons; students' work will vary.





## Use after Unit Six, Session 13 (cont.)

### Page 114, 2-Digit Addition Practice

- 1 a 42  
b 60
- 2 29, 49, 48, 37
- 3 a  $50 + 13 = 63$   
b  $80 + 11 = 91$   
c  $60 + 13 = 73$   
d  $90 + 7 = 97$   
e  $50 + 17 = 67$

### Page 115, Lines & Buttons

- 1 a Students' work will vary.  
b 12 children, including Tami  
c Students' responses will vary.
- 2 a (challenge) Students' work will vary.  
b (challenge) 3 of the 8 buttons have 4 holes.  
5 of the 8 buttons have 2 holes.  
c (challenge) Students' responses will vary.

### Page 116, Time & Money

- 1 a 4:25  
b 1:55  
c 7:45  
d 5:05
- 2 a 76¢  
b \$1.00
- 3 a 2 quarters, 50¢, \$0.50, half a dollar  
b \$0.25, 25¢

### Page 117, Cubes & Homework

- 1 a Students' work will vary.  
b There are 7 cubes in one stack and 3 cubes in the other stack.  
c Students' responses will vary.
- 2 a (challenge) Students' work will vary.  
b (challenge) 45 marbles  
c (challenge) Students' responses will vary.

### Page 118, More Place Value Practice

- 1 a 50, 60, 70, 90, 120, 130  
b 250, 240, 220, 210, 190, 180  
c 233, 243, 263, 273, 283, 303  
d 527, 517, 497, 477
- 2 a 400, 500, 600, 800, 900  
b 650, 550, 450, 250, 150

- 2 c 503, 603, 703, 903  
d 614, 514, 314, 214, 114
- 3 472, 628  
855, 113  
259, 381, 742, 260, 444, 117, 999
- 4 a Hundreds place  
b Ones place  
c Tens plans

### Page 119, Homework & 100

- 1 Students' responses will vary. Examples:  $12 + 12 = 24$ , *How many eggs in 2 dozen? How many doughnuts in 2 dozen?*  $30 - 6 = 24$ ,  $20 + 4 = 24$
- 2 (challenge) Students' responses will vary. Examples:  $90 + 30 = 120$ ,  $80 + 40 = 120$ ,  $130 - 10 = 120$ ,  $140 - 20 = 120$ ,  $2 \times 60 = 120$ ,  $3 \times 40 = 120$ ,  $240 \div 2 = 120$ ,  $360 \div 3 = 120$ ,  $50 + 50 + (24 - 4) = 120$

### Page 120, 2-Digit Subtraction Practice

- 1 27; students' work will vary.
- 2 34; students' work will vary.
- 3 44; students' work will vary.

### Page 121, Make Your Own Problems

- 1 85; students' work will vary.
- 2 57; students' work will vary.
- 3 46; students' work will vary.
- 4 29; students' work will vary.
- 5 27; students' work will vary.

## Use after Unit Seven, Session 14

### Page 122, Solving Equations

- 1 a 8  
b 8  
c 6  
d 9  
e 7  
f 3  
g 3
- 2 90, 30, 20  
60, 25, 45  
40, 50, 60  
55, 20, 50
- 3 (challenge) 244, 143, 50



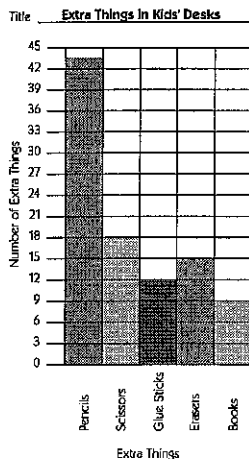
## Use after Unit Seven, Session 14 (cont.)

### Page 123, Apples & Orange Slices

- 48 apples; students' work will vary.
- (challenge) 144 seeds; students' work will vary.

### Page 124, The Second Graders Clean Their Desks

- Students' graph titles and methods of marking the graph will vary. Example:



- 29 pencils; students' work will vary.
- (challenge) 98 extra things; students' work will vary.

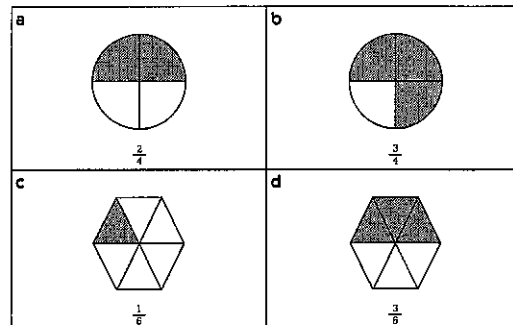
### Page 125, Measuring Problems

- Students' responses will vary.
  - 13 cm, 15 cm
  - Line A
  - 2 cm; students' work will vary.
- Students' responses will vary.
  - 20 cm, 25 cm
  - Crooked Line D
  - 5 cm; students' work will vary.

### Page 126, Fractions

- $\frac{1}{2}$
  - $\frac{1}{4}$
  - $\frac{1}{3}$
  - $\frac{3}{4}$

- Student work will vary. Examples:



### Page 127, The Army Ants Measure Up

- Students' responses will vary.
- 15 army ants
- Students' responses will vary.

### Page 128, Place Value Review

- hundreds, 700
  - ones, 3
  - tens, 50
  - hundreds, 600
- $85 > 58$
  - $327 < 372$
  - $106 < 610$
  - $218 = 218$
  - $735 > 573$
  - $204 < 240$
  - $483 > 438$
- a–g Students' responses will vary.

### Page 129, More about Meters

- Students' responses will vary.
- Students' responses will vary.
- 10 seconds
- Students' responses will vary. Examples: *snail*, *slug*
- Meters
- Centimeters
- (challenge) Shorter by 32 centimeters; students' work will vary.

### Page 130, Adding & Subtracting

- 86, 73, 68, 88, 77, 68, 76  
378, 126, 894, 375, 390, 457, 150
- 91; students' work will vary.
  - 262; students' work will vary.



## Use after Unit Seven, Session 14 (cont.)

### Page 130, Adding & Subtracting (cont.)

- 3 80, 30, 41, 51, 20, 30, 25  
4 25; students' work will vary.

### Page 131, Crayons

- 1 21¢; students' work will vary.  
2 88 crayons; students' work will vary.  
3 No; students' responses will vary. Example: 99¢ is only 1 penny away from \$1.00, so  $\$1.50 + 99¢$  would be way more than \$2.00.

### Page 132, Pedro's Birthday

- 1 Tuesday  
2 April 3; students' explanations will vary.  
3 21 days in three weeks; students' work will vary.  
4 72 hours in three days; students' work will vary.  
5 a 3 hours  
b 180 minutes; students' work will vary.

### Page 133, More Crayon Problems

- 1 42¢; students' work will vary.  
2 (challenge) \$8.60; students' work will vary.

## Use after Unit Seven, Session 25

### Page 134, Digits & Number Riddles

1

a 289	<u>8</u> is in the tens place. <u>9</u> is in the ones place. <u>2</u> is in the hundreds place.	b 945	<u>5</u> is in the ones place. <u>9</u> is in the hundreds place. <u>4</u> is in the tens place.
c 316	<u>1</u> is in the tens place. <u>3</u> is in the hundreds place. <u>6</u> is in the ones place.	d 405	<u>5</u> is in the ones place. <u>0</u> is in the tens place. <u>4</u> is in the hundreds place.
e 5,887	<u>8</u> is in the tens place. <u>7</u> is in the ones place. <u>5</u> is in the thousands place. <u>6</u> is in the hundreds place.	f 4,301	<u>1</u> is in the ones place. <u>3</u> is in the hundreds place. <u>0</u> is in the tens place. <u>4</u> is in the thousands place.

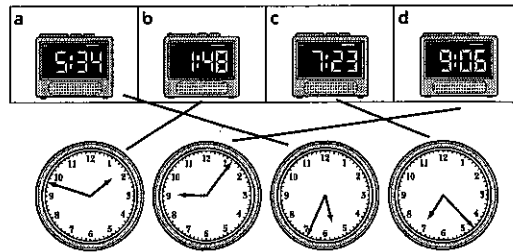
- 2 a (challenge) 147  
b (challenge) 3,702 or 3,700

### Page 135, The Toy Store

- 1 \$37.00; students' work will vary.  
2 (challenge) Skates, puppet, and soccer ball; students' work will vary.

### Page 136, Enough Time in the Day

1



- 2 15 minutes  
3 4 hours  
4 240 minutes; students' work will vary.

### Page 137, More Toy Store Problems

- 1 \$7.98; students' work will vary.  
2 (challenge) 5 kids; students' work will vary.

### Page 138, More Fractions

- 1 a  $\frac{2}{4}$   
b  $\frac{2}{3}$   
c  $\frac{3}{4}$   
d  $\frac{4}{6}$   
2 a  $\frac{3}{6}$  ( $\frac{1}{2}$  also acceptable) students' work will vary.  
b  $\frac{1}{4}$ ; students' work will vary.

### Page 139, Pizza Problems

- 1 David  
2 (challenge) David

### Page 140, Reading & Writing Numbers

- 1 a  $286 = 200 + 80 + 6$   
b  $753 = 700 + 50 + 3$   
c  $621 = 600 + 20 + 1$   
d  $347 = 300 + 40 + 7$   
e  $917 = 900 + 10 + 7$   
f  $160 = 100 + 60$   
g  $804 = 800 + 4$   
2 528, 222, 171  
719, 847, 503  
291, 319, 226, 452, 999, 341, 418  
3 a 306  
b 217



**Use after Unit Seven, Session 25 (cont.)**

**Page 141, How Long Is a Shark?**

- 1 Thresher shark
- 2 Night Shark
- 3 a >  
b <
- 4 154 cm, 174 cm, 204 cm, 247 cm, 312 cm, 373 cm
- 5 126 cm; students' work will vary.











**Page 142, Addition & Subtraction Practice**

- 1 43, 58, 88, 66, 100, 68, 70  
299, 360, 597, 240, 350, 351, 500
- 2 a 94; students' work will vary.  
b 270; students' work will vary.
- 3 40, 40, 44, 25, 30, 15, 25
- 4 Students' responses and work will vary. Answers to the 4 problems are shown below.  
20, 25, 34, 24

**Page 145, Breanna's Pockets**

- 1 Pocket B has 59¢  
Pocket C has 83¢  
Pocket D has 56¢
- 2 Pocket C
- 3 Pocket D
- 4 Student responses will vary. Example: *No, because 59 and 56 is just a little more than a dollar. 77 and 83 are each both less than a dollar. I don't think it will add up to \$3.00.*
- 5 \$2.75; students' work will vary.
- 6 (challenge) \$1.88; students' work will vary.

**Page 143, Maria Jose's Day**

Event	Time	A.M. or P.M.	Clock
a  Breakfast	7:05	A.M. P.M.	
b  Arrive at School	8:15	A.M. P.M.	
c  Lunch	11:55	A.M. P.M.	
d  Soccer Practice	4:10	A.M. P.M.	
e  Dinner	6:30	A.M. P.M.	

**Page 144, More Number Patterns**

- 1 a 45, 65, 85, 95, 105  
b 24, 30, 42, 48, 54, 72  
c 120, 125, 135, 140, 150  
d 313, 513, 713, 813, 913

2

Feet	1	2	3	4	5	6	7	8	9
Inches	12	24	36	48	60	72	84	96	108

- 3 (challenge) 9 yards; students' work will vary.