Name Date

LESSON 9•1

Number Grid

−9	−8	−7	−6	−5	−4	−3	−2	−1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Name Date

LESSON 9•1

Framed Number Grid

−9	−8	−7	−6	−5	−4	−3	−2	−1	0
1	2	3	4	5	6	7	8	9	10
11									
21									
31									
41									
51									
61									
71									
81									
91									
101									

Name Date

LESSON 9•1

12-Cell Strip

glue glue

Name Date

LESSON 9•1

The Smallest and the Largest

Use your 0–9 number cards. Choose two number cards. Make the smallest number you can. Make the largest number you can. Record the numbers.

	Digits Used	Smallest Number	Largest Number
Example	5, 3	35	53

Choose three number cards. Make the smallest number you can. Make the largest number you can. Record the numbers.

	Digits Used	Smallest Number	Largest Number
Example	8, 0, 2	208	820

Name Date

HOME LINK 9•1

Number-Grid Hunt

Family Note Ask your child to describe some of the patterns in the number grid below. Then ask him or her to fill in specific numbers you suggest; for example, *Where would the number 140 go?* Do this with several numbers before your child completes the rest of the grid. By learning to identify and use patterns in the number grid, your child will develop strong number sense and computation skills.

Please return this Home Link to school tomorrow.

Ask someone to say a number between 101 and 200. Record it on the number grid. Do this for several numbers. Then finish filling in the grid on your own.

101									
				125					
								139	
									150
171									
		183							

Practice

Count up by 1s.

268, ____, 270, 271, ____, ____, 274

Name Date

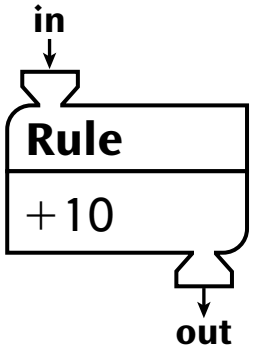
LESSON 9•2

Using Rules to Solve Problems

"What's My Rule?"

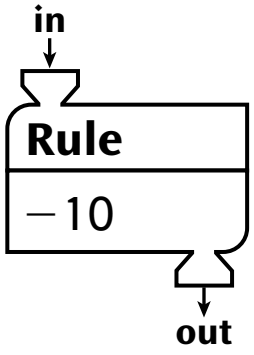
Complete the tables.

1.



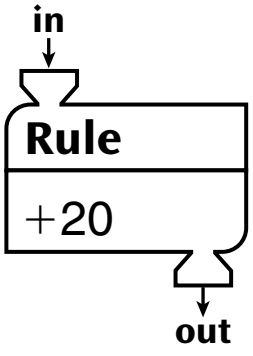
in	out
27	
100	

2.



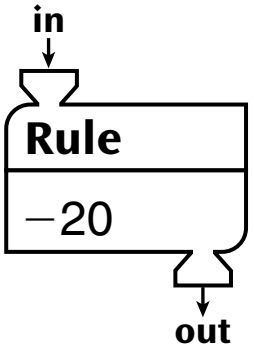
in	out
57	47
32	
100	

3.



in	out
35	
	52
84	

4.

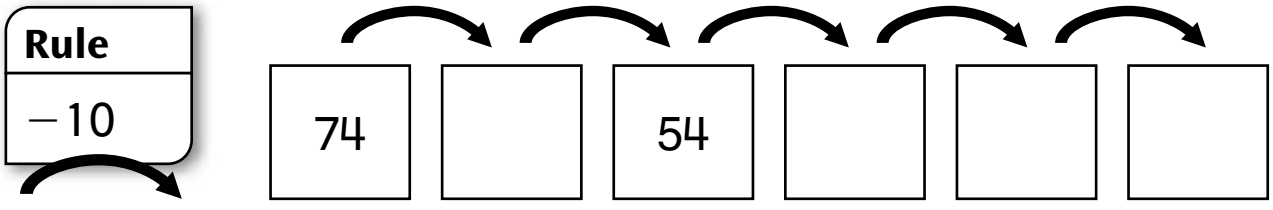


in	out
42	
	67
91	

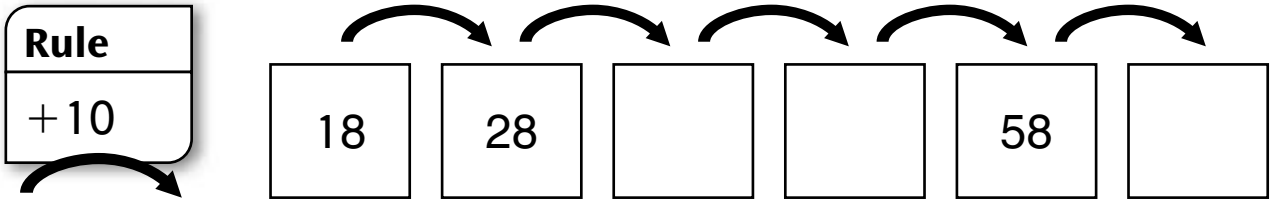
Frames-and-Arrows

Fill in the frames.

5.



6.



Name Date

HOME LINK 9•2

Using the Number Grid


Family Note Ask your child to explain how to count up and back by 10s on the number grid and then to demonstrate how to solve the addition and subtraction problems on the number grid. If your child counts one space at a time, remind him or her that to count up by 10s, you can move down one row for every 10, and to count back by 10s, you can move up one row for every 10.

Please return this Home Link to school tomorrow.

Use the number grid to solve the problems.

1. 35 + 6 = _____

2. 61 + 10 = _____

3. 43 − 20 = _____

−9	−8	−7	−6	−5	−4	−3	−2	−1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

4. ____ = 82 − 10

5. ____ = 58 + 20

6. ____ = 75 − 9

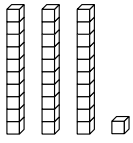
7. 55 + 10

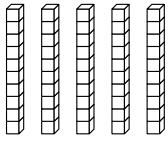
8. 99 − 20

9. 46 − 8

Practice

Solve.

10.  = _____

11.  = _____

Name Date

LESSON 9•2

Adding and Subtracting 10s

Build each number with base-10 blocks. Draw the blocks. Use | and •.

1. 24

34

54

64

2. 82

72

52

12

Try This

3. Describe a pattern you see on the page.

Name Date

LESSON 9•2

Number-Grid Shortcuts

1. Tabitha solved these problems on a number grid.

$37 - 19 =$ _____

$55 - 39 =$ _____

$72 - 49 =$ _____

Tabitha said that she hopped rows to solve the problems. She said that she never moved back more than 1 space. Explain how you think she solved the problems.

Explain how Tabitha's strategy can help you solve other problems on the number grid.

Name _____ Date _____

LESSON 9•3

Number-Grid Pieces

Name _____

This is part of a number grid.
Fill in the missing numbers.

23

Name _____

This is part of a number grid.
Fill in the missing numbers.

23

Name _____

This is part of a number grid.
Fill in the missing numbers.

23

Name _____

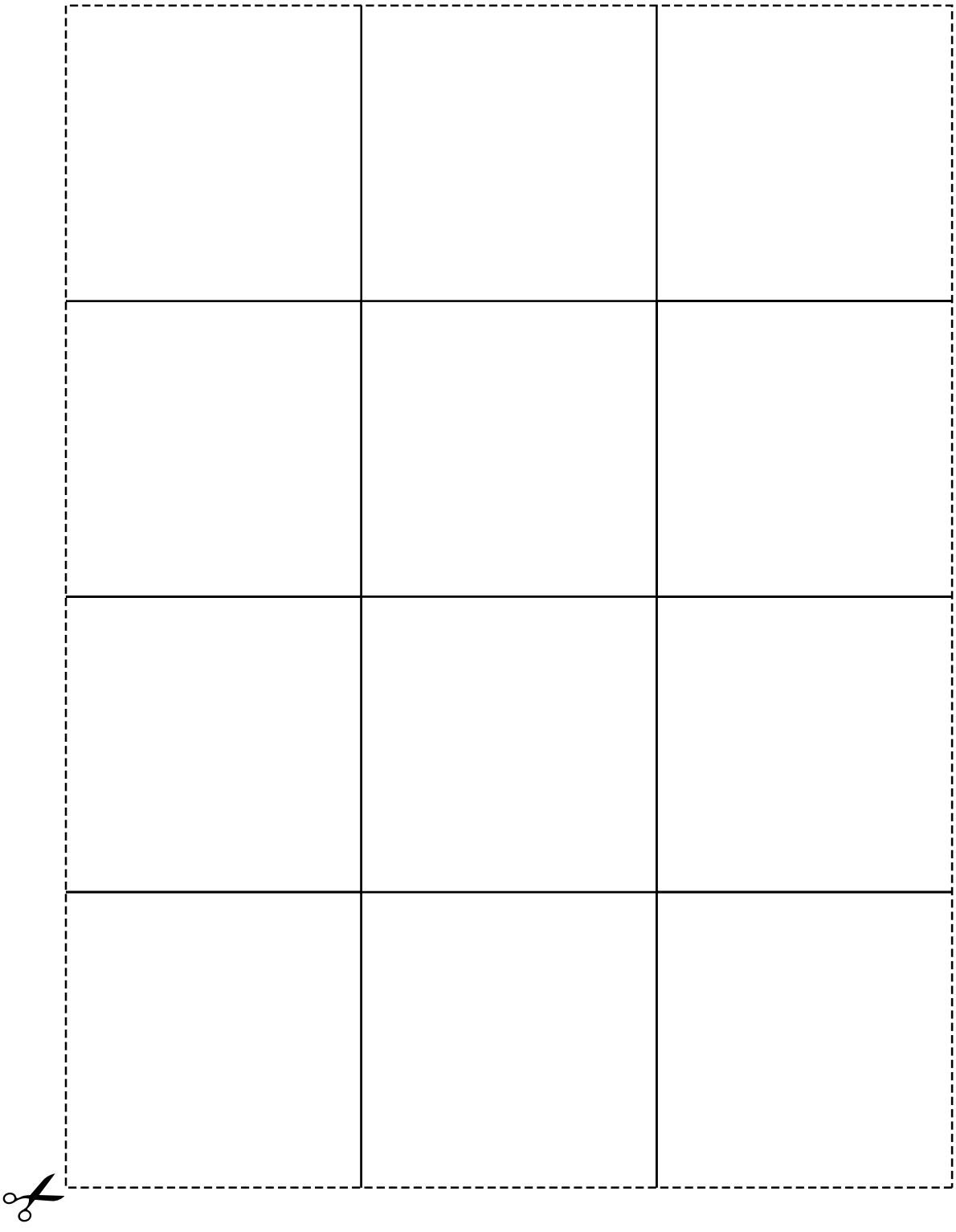
This is part of a number grid.
Fill in the missing numbers.

23

Name Date

LESSON 9•3

Masks for Number Grid



Name Date

HOME LINK 9•3

Number-Grid Puzzles

Family Note Have your child show you how to complete the number-grid puzzles. Encourage him or her to explain patterns on the number grid that are helpful for solving the problems. For example, if you move up one row, the digit in the 10s place is 1 less.

Please return this Home Link to school tomorrow.

Show someone at home how to fill in the missing numbers.

1.

53

2.

23		
43		

3.

	79	

Practice

4. Draw shapes that have exactly 4 sides and 4 corners.

Write their names.

Name Date

LESSON 9•3

Solving Number Codes

What number am I?

KEY
↑ = − 10
↓ = + 10
→ = + 1
← = − 1

1. 5 ↓ ↓ → → _____

2. 30 ↑ ← ← ← ← _____

3. 87 ↑ ↑ ↑ → → _____

Fill in the arrows.

4. 21 _____ 34

5. 65 _____ 41

6. 104 _____ 80

Write your own codes. Trade with a partner.

7. _____

8. _____

Name Date

LESSON 9•4

Name-Collection Boxes

1. Add 5 names.

33

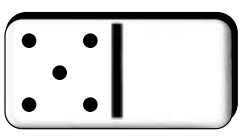
2. Fill in the label.
Add 5 names.

10 + 15

3. Cross out names that do not belong.

50

25 + 25



60 − 10

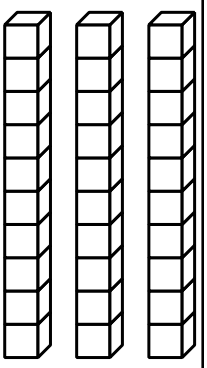
10 + 10 + 10 + 10 + 10

4. Cross out names that do not belong. Add 2 names.

30

3 + 3 + 3 + 3

10 + 10 + 5



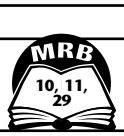
50 − 20

3 dimes

Name Date

HOME LINK 9•4

Solving Problems Two Ways



Family Note Ask your child to explain how to solve the first set of problems with base-10 blocks and the second set on the number grid. At this point it is important that children work with more concrete representations. This will be beneficial later, when they are faced with more difficult problems.

Please return this Home Link to school tomorrow.

Draw the total number of base-10 blocks.
Then write the total.

Example: |||||.. + |||..... = ||||||||.....
52 + 35 = 87

1. |..... + ||||||.. = _____

15 + 62 = _____

2. |||.... + ||.... = _____

34 + 24 = _____

Use the number grid to help you solve the problems.

−9	−8	−7	−6	−5	−4	−3	−2	−1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

3. 63 + 8 = _____

4. 55 + 20 = _____

5. _____ = 47 + 12

Practice

6. It is 8:10. How many minutes is it until 8:30?

_____ minutes

Name Date

LESSON 9•5

How Much a Container Holds

1. Fill the small cup to the top. Pour the contents into a container. Repeat this until you have filled each container to the top.

Container A holds about _____ small cups.

Container B holds about _____ small cups.

Container C holds about _____ small cups.

2. Now use the large cup to fill each container.

Container A holds about _____ large cups.

Container B holds about _____ large cups.

Container C holds about _____ large cups.

3. Do the containers hold more small cups or more large cups?

_____

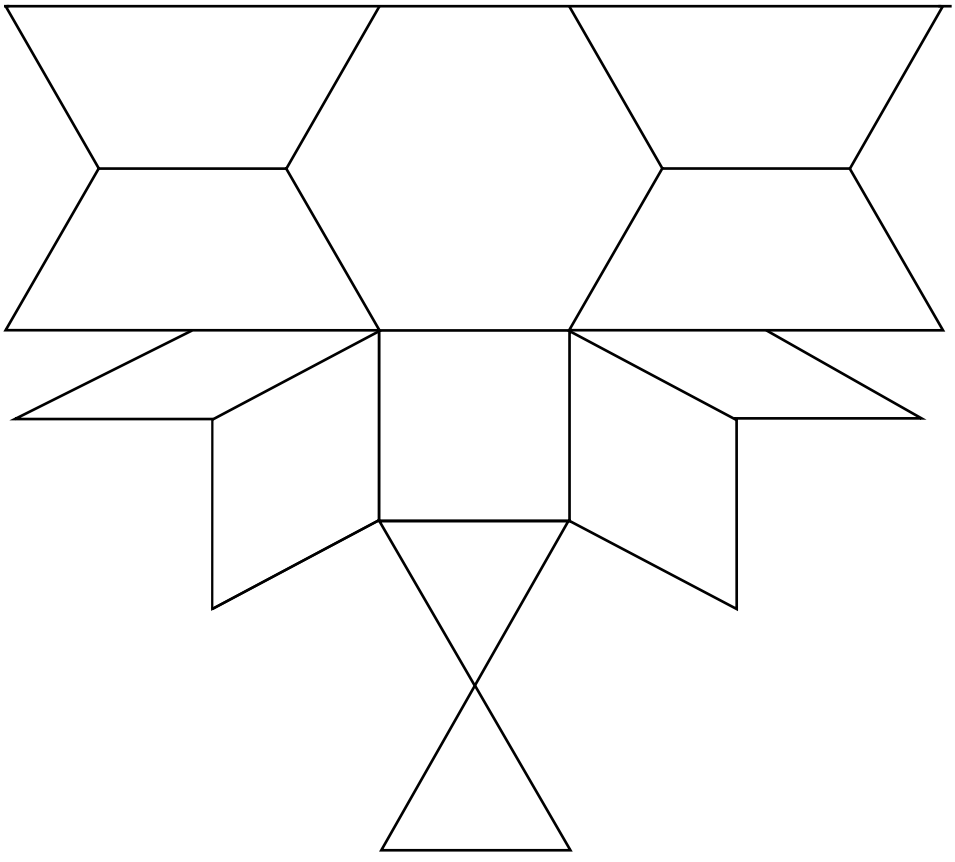
4. Draw the containers in order from smallest to largest. Use the back of this page.

Name Date

LESSON 9•5

Pattern-Block Symmetry

Complete the design.
The two halves
should match.



Name Date

HOME LINK 9•5

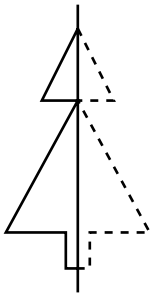
Symmetry

Family Note In class today, children used blocks to make the mirror image of a design across a line of symmetry. This resulted in a symmetrical design. A figure is symmetrical across a line if it has two matching halves. On this page, help your child complete the designs so that the two halves match.

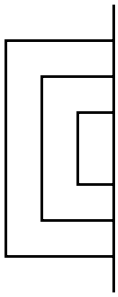
Please return this Home Link to school tomorrow.

Complete each design so that the two halves match.

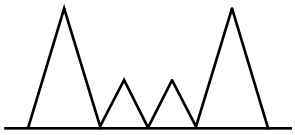
Example:



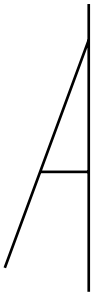
1.



2.



3.



4.

5.

Practice

Yes or no?

6. \$0.85 > 85¢ _____

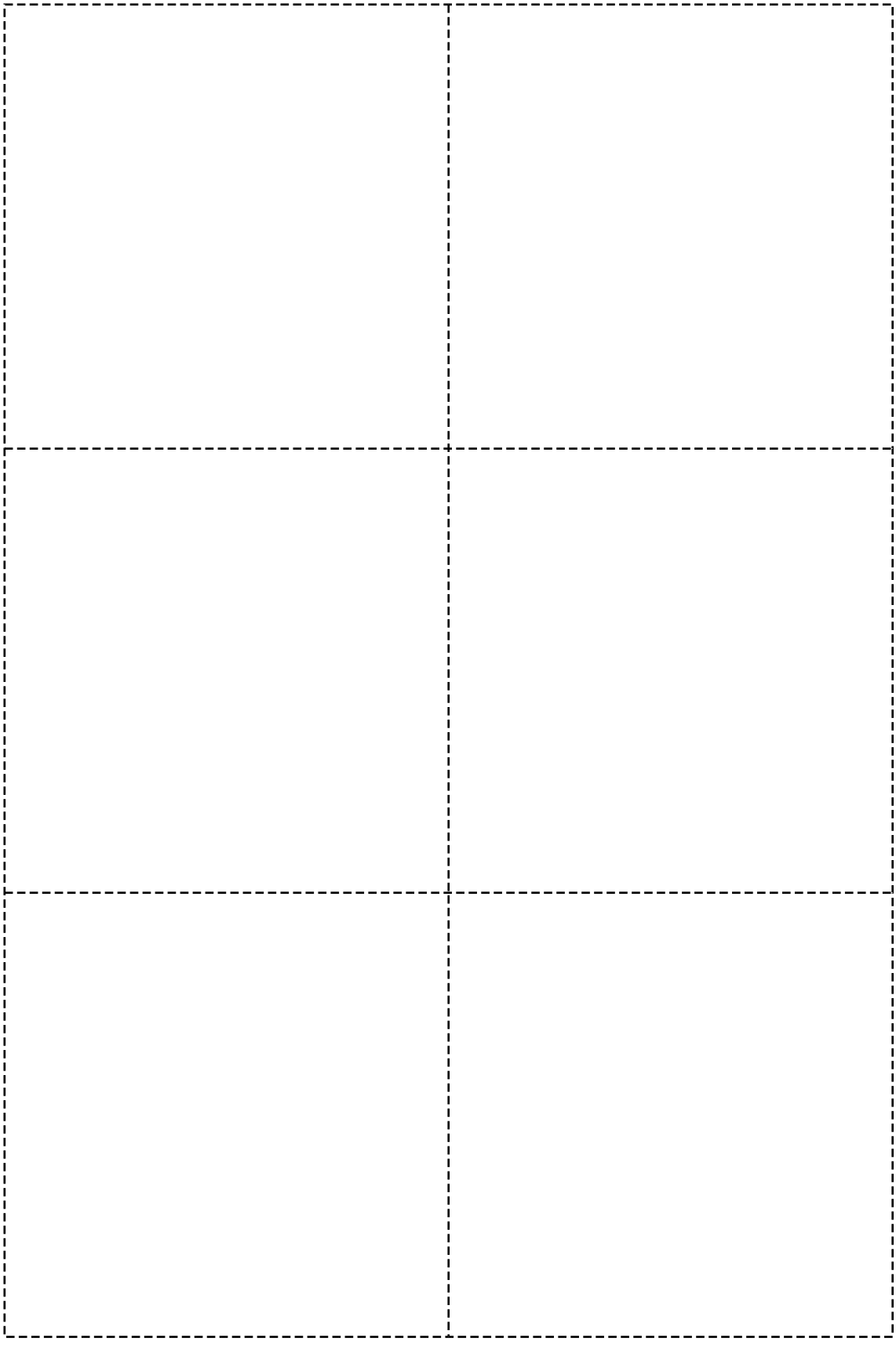
7. 5 pennies < 5¢ _____

8. Ⓝ Ⓟ Ⓟ Ⓟ = 1 dime _____

Name Date

LESSON 9•6

Squares for Fractions



Name Date

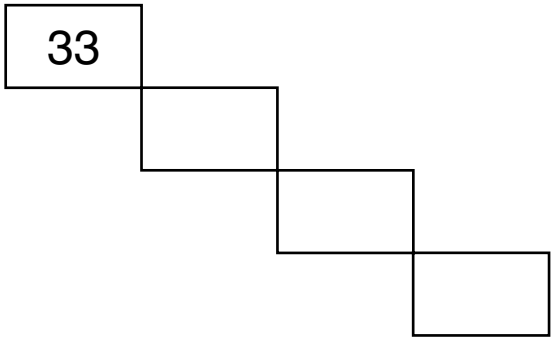
LESSON 9•6

Patterns and Pieces

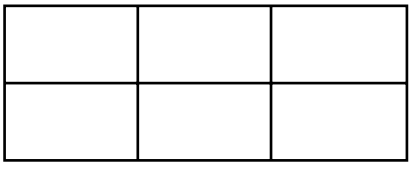
1. Show counts by 2s with an X. Show counts by 4s with an O.

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

2. Solve the number-grid puzzles.



3. Make up your own.



Name Date

HOME LINK 9•6

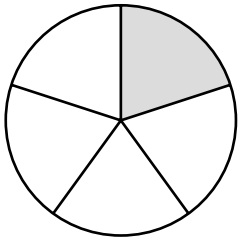
Fractional Parts

Family Note In Unit 8, we worked with unit fractions, such as $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$. Today, we started to explore fractions in which the number above the fraction bar is more than 1, such as $\frac{2}{3}$, $\frac{3}{4}$, and $\frac{5}{6}$. If your child is having trouble with some of the problems on this page, you might mention that $\frac{1}{2}$ means that 1 out of 2 parts is shaded, that $\frac{3}{6}$ means that 3 out of 6 parts are shaded, and so on. Or you might ask your child to explain the fractions to you in this way.

Please return this Home Link to school tomorrow.

Mark the fraction that tells what part of the circle is shaded.

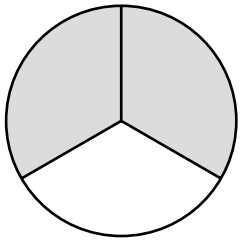
1.



$\frac{1}{2}$ $\frac{5}{6}$

$\frac{1}{5}$ $\frac{5}{1}$

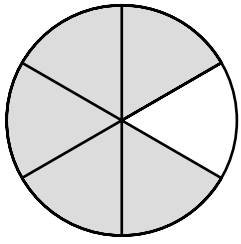
2.



$\frac{2}{2}$ $\frac{2}{3}$

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

3.

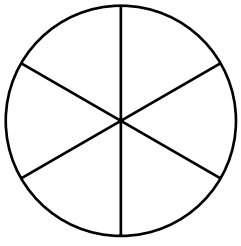


$\frac{1}{6}$ $\frac{1}{5}$

$\frac{6}{5}$ $\frac{5}{6}$

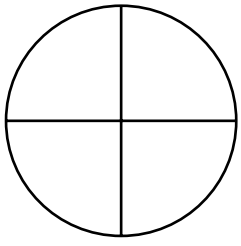
Shade the circles.

4.



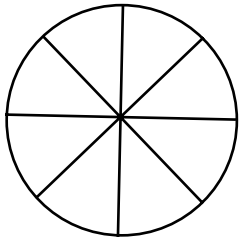
Shade $\frac{4}{6}$.

5.



Shade $\frac{3}{4}$.

6.



Shade $\frac{5}{8}$.

Practice

7. Name or draw 4 squares you find in your home.

Name Date

LESSON 9•7

Fraction Strips

1-strip

Name Date

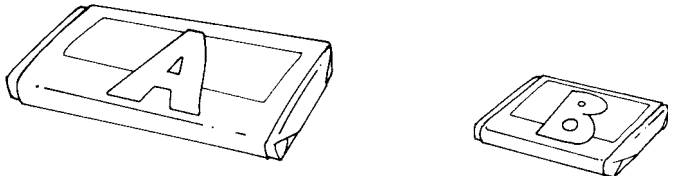
HOME LINK 9•7

Comparing Fractions

Family Note Today we divided unit strips into equal parts: halves, thirds, fourths, sixths, and eighths. Then we compared the sizes of the parts. Your child probably cannot tell which of two fractions is more by looking at the fractions, but he or she should be able to compare two fractions by looking at pictures of them. Encourage your child to label one part of each shape with a fraction before deciding which fraction is more or less.

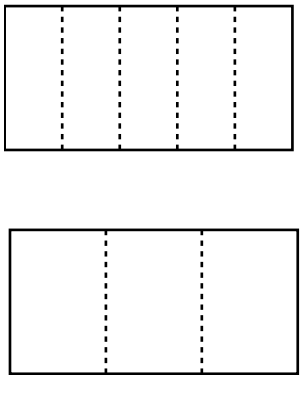
Please return this Home Link to school tomorrow.

1. Which would you rather have, half of fruit bar A or half of fruit bar B? Explain your answer to someone at home.



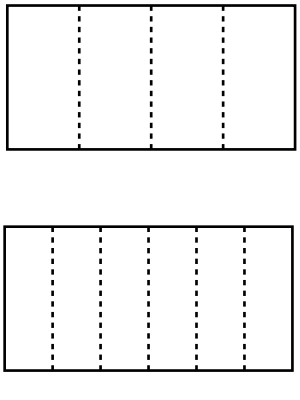
2. Which is more, $\frac{1}{5}$ or $\frac{1}{3}$?

_____



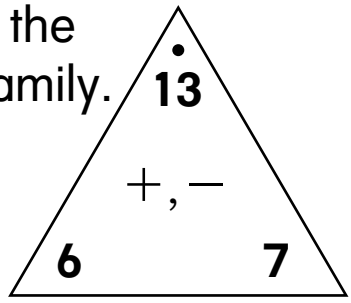
3. Which is more, $\frac{1}{4}$ or $\frac{1}{6}$?

_____



Practice

4. Write the fact family.



6 + 7 = 13

_____ + _____ = _____

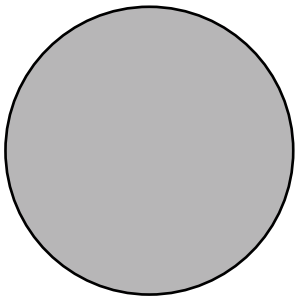
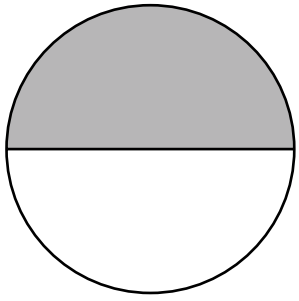
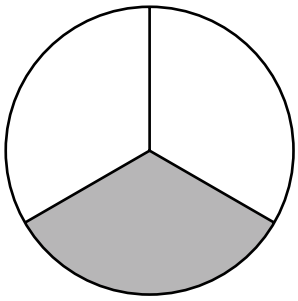
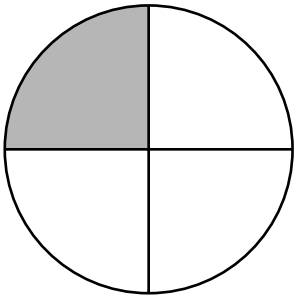
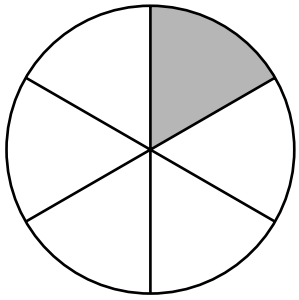
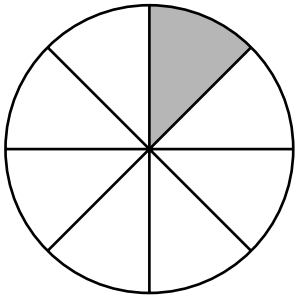
_____ − _____ = _____

_____ − _____ = _____

Name Date

LESSON 9•7

Fraction Match Cards

$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{3}$
$\frac{1}{4}$	$\frac{1}{6}$	$\frac{1}{8}$
		
		

Name Date

HOME LINK 9•8

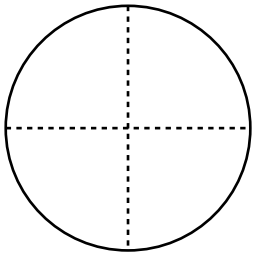
Solving Fraction Problems

MRB 12, 13, 15

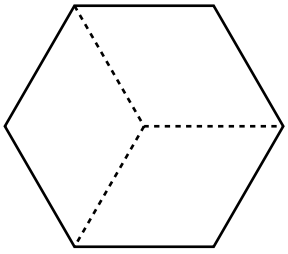
Family Note This Home Link reviews some of the fraction concepts we have covered this year. The most important concept first graders should understand is that a fraction names a part of something (the whole) that has been divided into equal parts. Because children's work on fraction concepts this year may be their first exposure, they may still be unclear about some of the ideas we have explored. That's okay; these and other fraction concepts will be revisited in later grades.

Please return this Home Link to school tomorrow.

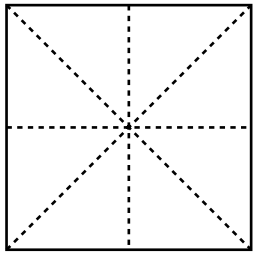
1. Shade $\frac{1}{4}$ of the circle.



2. Shade $\frac{2}{3}$ of the hexagon.



3. Shade $\frac{5}{8}$ of the square.



4. Circle the names of the shapes for which you shaded more than $\frac{1}{2}$ of the shape.

circle hexagon square

5. Divide the rectangle into fourths.

Shade $\frac{1}{2}$ of the rectangle.

How many fourths did you shade? _____

Practice

Solve.

6. 5 hundreds, 6 tens, and 9 ones = _____

7. 7 hundreds, 4 ones, and 3 tens = _____

Name Date

LESSON 9•8

Finding Fraction Combinations

Divide each 1-strip into fractional parts. Label the fractional parts.

1-strip

1-strip

1-strip

1-strip

1-strip

Name Date

LESSON 9•8

Finding Fraction Combinations *continued*

Divide each half of a 1-strip into fractional parts.
Label the fractional parts.

Name Date

HOME LINK 9•9

Unit 10: Family Letter

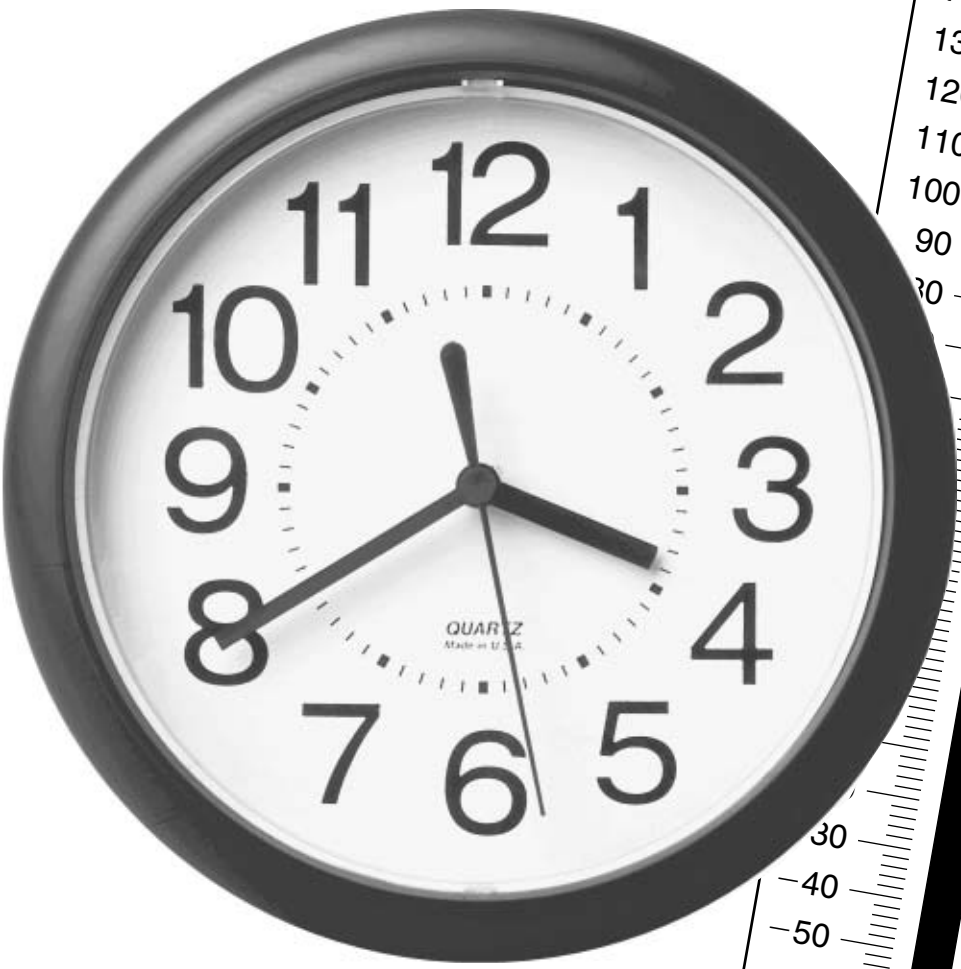
End-of-Year Reviews and Assessments

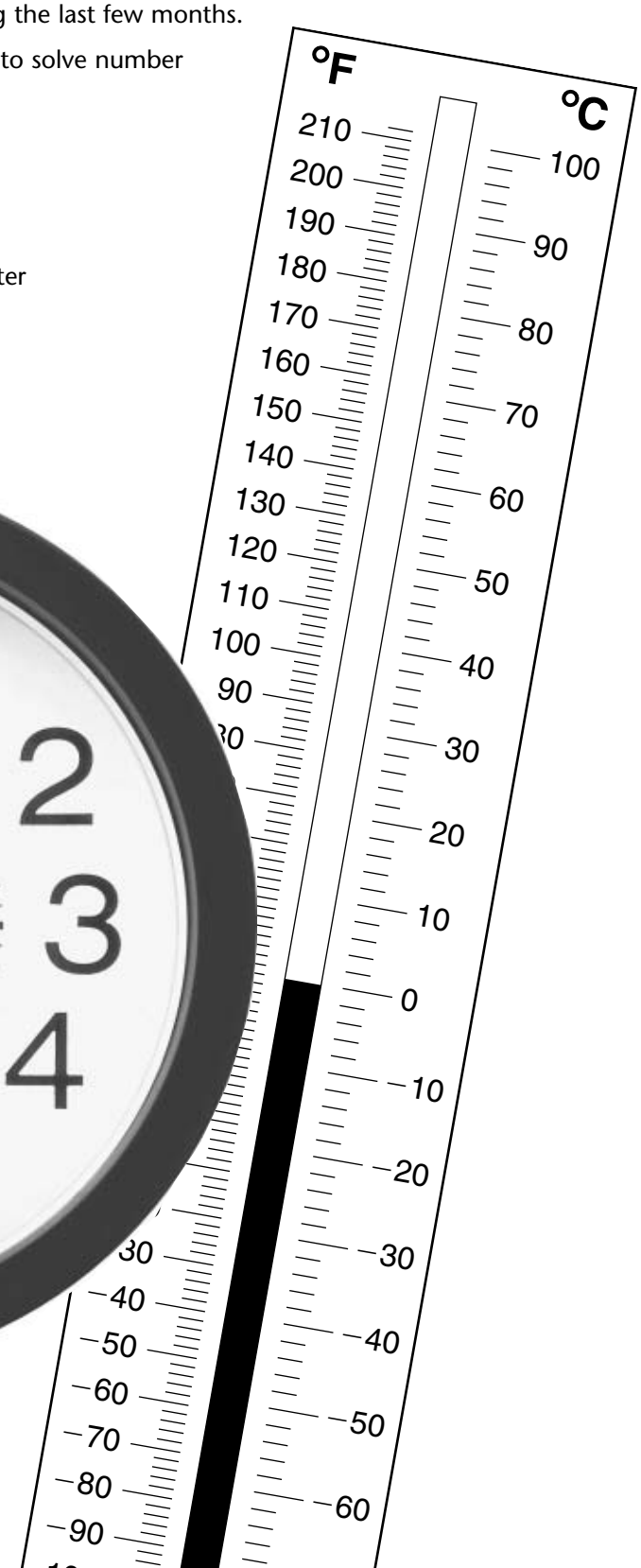
In Unit 10, children will review the concepts and skills they have learned throughout the year. Children will review ways to make sense of collections of data, such as height measurements. Specifically, they will use the data they collected at the beginning of the year to determine how much they have grown during the last few months.

Children will also continue to use mental math strategies to solve number stories involving money.

Finally, children will review the following skills:

- Telling time to 5 minutes on an analog clock
- Using straws to construct geometric figures
- Reading and comparing temperatures on a thermometer
- Understanding place-value concepts
- Using the number grid





Do-Anytime Activities

To work with your child on the concepts reviewed in this unit, try these interesting and rewarding activities:

1. Continue to work on telling time to the minute.
2. Ask for answers to number stories that involve two or more items. For example, I want to buy a bran muffin for 45 cents and a juice box for 89 cents. How much money do I need? ($1.34) Encourage your child to use mental math, coins, the number line, or the number grid to work out solutions.
3. Point to a 3-digit number, such as 528. Ask what the digit "2" means (20); the "5" (500); the "8" (8).
4. Have your child create the largest and smallest numbers given 2 or 3 digits.
5. Together, note the temperature when the weather feels too hot, too cold, or about right. Encourage your child to read any temperature sign or billboard when you travel, noting whether the degrees are Celsius or Fahrenheit.

Digits Used	Smallest Number	Largest Number
5, 3	35	53

Digits Used	Smallest Number	Largest Number
8, 0, 2	208	820

Building Skills through Games

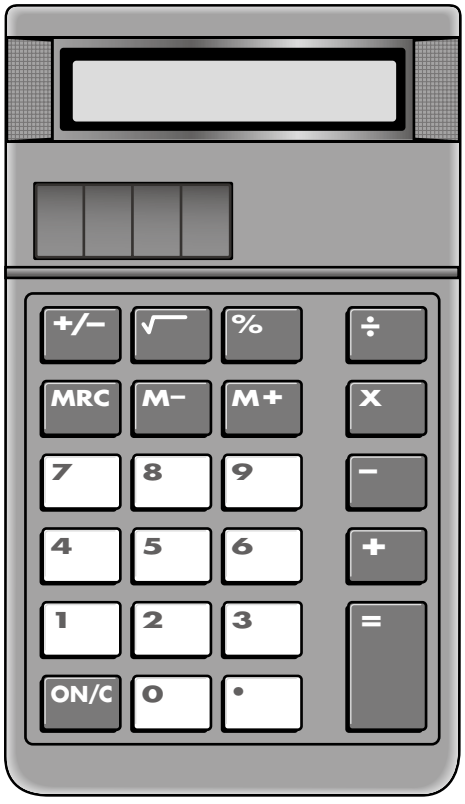
In this unit, your child will practice addition and money skills by playing the following games:

Beat the Calculator

See *My Reference Book,* pages 124 and 125. A "Calculator" (a player who uses a calculator to solve the problem) and a "Brain" (a player who solves the problem without a calculator) race to see who will be first to solve addition problems.

$1, $10, $100 Game

Players roll a die and put that number of dollars on their mats. Whenever possible, they exchange 10 dollars for a $10 bill. The first player to make an exchange for a $100 bill wins!



As You Help Your Child with Homework

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

Home Link 10•1

1.–4. Check that your child correctly graphs the birth months of families and friends, correctly identifies the months with the greatest and fewest number of births, and can tell you the number of births in those months.

5. > **6.** = **7.** >

Home Link 10•2

1.–2. Check that your child sets the hands on the clock correctly to show the times given; and that your child writes and says the times shown on the clock correctly.

3. 15 **4.** 30

5.

$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Home Link 10•3

1. Sample answer: ⓆⓆⓆⒹⒹ

2. Sample answers: ⓆⓆⓆⓆ or $1

3. 6 **4.** 13 **5.** 20

Home Link 10•4

1. 15¢

2. 20¢

3. 90¢; 10¢

4. 44, 48, 52, 55, 57, 64

Home Link 10•5

1. pentagon

2. rectangle

3. octagon

4. hexagon

5. square

6. triangle

7. Sample answers: 735; 1,711; 20,703; 799

Home Link 10•6

1. 48 **2.** 72 **3.** 46

4. 58 **5.** 80 **6.** 24

7. 105; 100; 95; 90

Home Link 10•7

1. 325; 334; 335; 346; 347; 355; 356

2. 704; 706; 707; 714; 715; 717; 727

3. 558; 568; 576; 578; 585; 586; 587

4. 931; 942; 943; 950; 951; 952; 962

5. 4 **6.** 4 **7.** 7