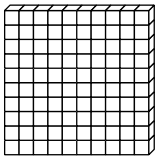
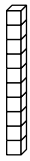
Name Date Time

LESSON 3•1

Place-Value Mat

 hundreds	 tens	 ones

Name Date Time

HOME LINK 3•1

Place Value

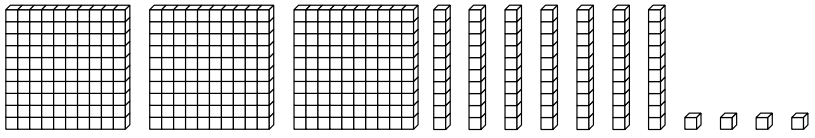
Family Note All numbers are made up of digits. The value of a digit depends on its place in the number. In the number 704, the digit 7 means 7 hundreds, the digit 0 means 0 tens, and the digit 4 means 4 ones. This idea is called **place value.**

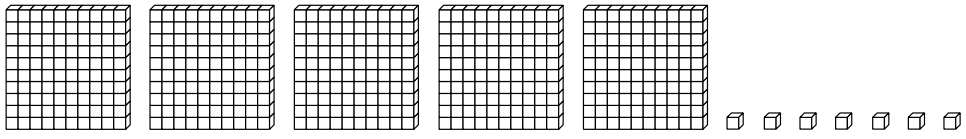
Your child has been using base-10 blocks to help him or her understand the idea of place value. Base-10 blocks are shown in Problems 1a and 1b below. A "cube" (with each side 1 unit long) represents 1. A "long" (a rod that is 10 units long) represents 10. And a "flat" (a square with each side 10 units long) represents 100.

Please return this Home Link to school tomorrow.

MRB 10 11

1. Which number do the base-10 blocks show?

a.  _____

b.  _____

2. Write a number with
7 in the hundreds place,
0 in the ones place, and
4 in the tens place.

_____

3. Write a number with
3 in the tens place,
6 in the ones place, and
9 in the hundreds place.

_____

4. In 806, how many hundreds? _____

How many tens? _____

How many ones? _____

5. In 231, how many hundreds? _____

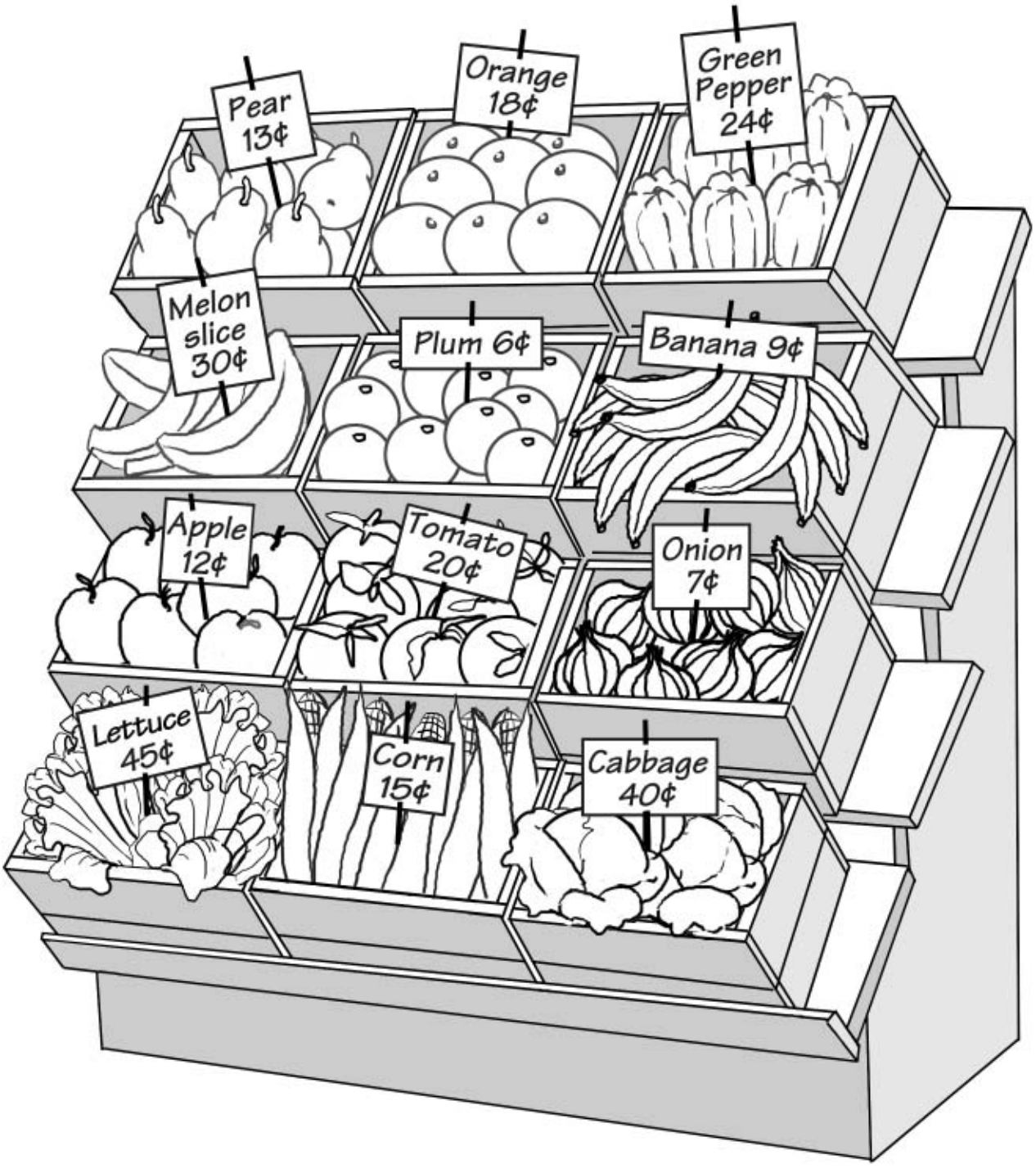
How many tens? _____

How many ones? _____

Name Date Time

LESSON 3•2

Fruit and Vegetables Stand Poster



Name Date Time

HOME LINK 3•2

How Much Does It Cost?

Family Note In this activity, your child looks through advertisements, selects items that cost less than $2.00, and shows how to pay for those items in more than one way. For example, your child could pay for an item that costs 79¢ by drawing 3 quarters and 4 pennies or by drawing 7 dimes and 9 pennies. If you do not have advertisements showing prices, make up some items and prices for your child.

Please return this Home Link to school tomorrow.

Look at newspaper or magazine advertisements. Find items that cost less than $2.00. Write the name and price of each item.

Show someone at home how you would pay for these items with coins and a $1 bill. Write Ⓟ, Ⓝ, Ⓓ, Ⓠ, and $1. Try to show amounts in more than one way.

1. I would buy _____. It costs _____.

This is one way I would pay: _____

This is another way: _____

2. I would buy _____. It costs _____.

This is one way I would pay: _____

This is another way: _____

3. I would buy _____. It costs _____.

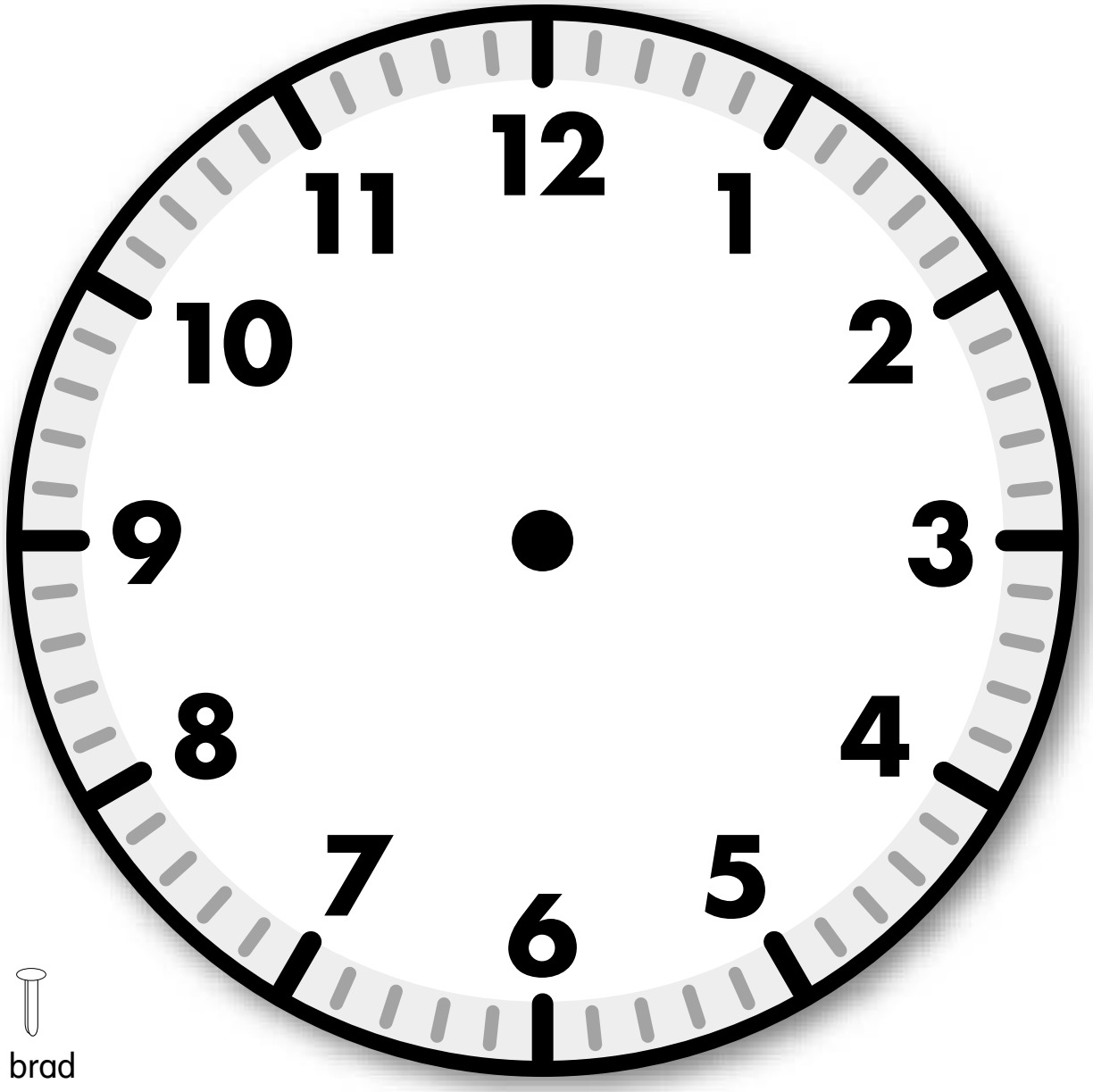
This is one way I would pay: _____

This is another way: _____

Name Date Time

LESSON 3•3

Demonstration Clock



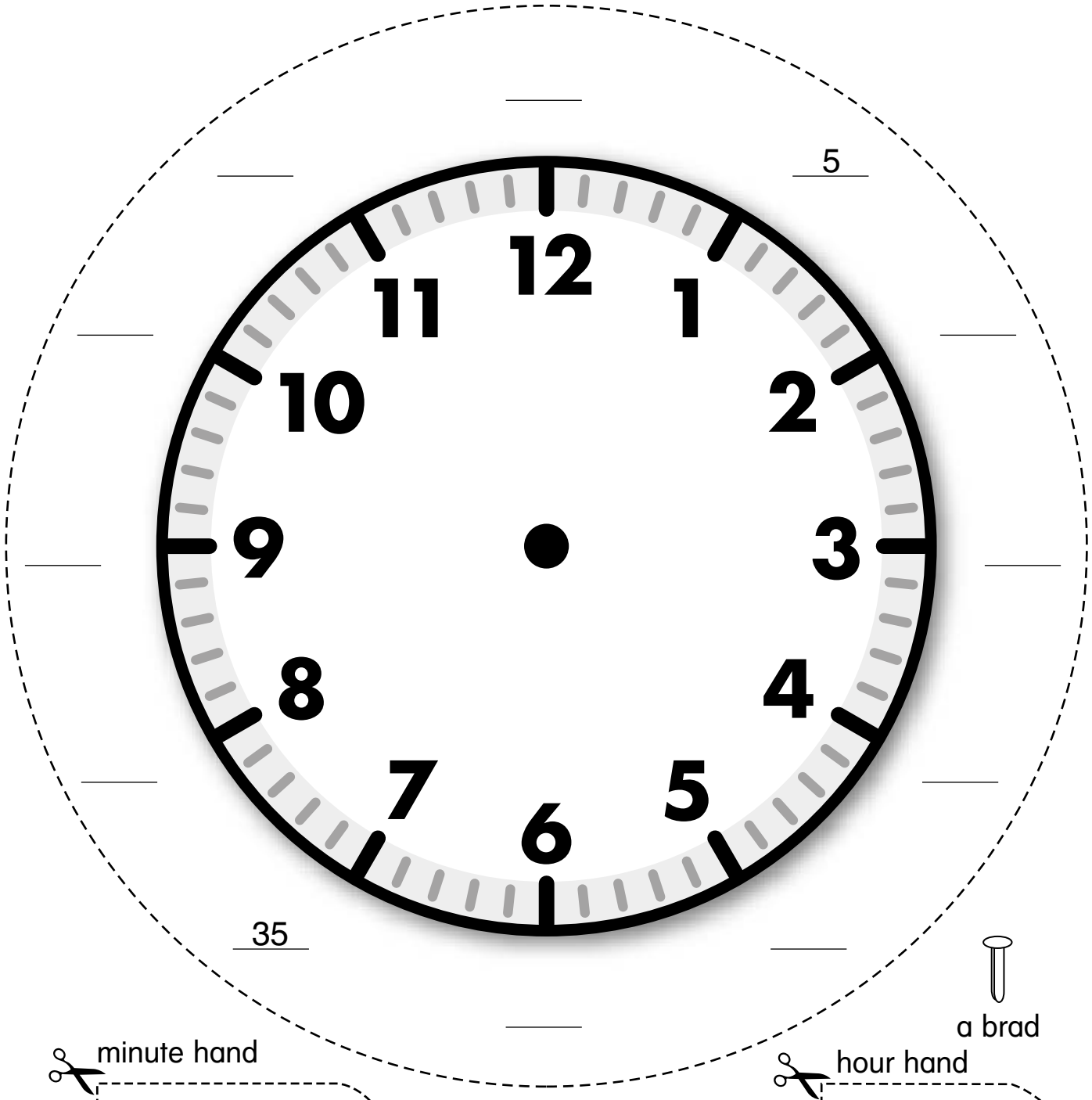
a brad

hour hand

Name Date Time

LESSON 3•3

5-Minute Clock



a brad

minute hand

hour hand

- Color the hour hand red, and color the minute hand green.
- Cut out the clock face and hands.
- Punch a hole through the center of the clock face and through the **X**s on the hands. Fasten the hands to the clock face with a brad.

Name Date Time

HOME LINK 3•3

Times of Day

Family Note Your child has been learning how to tell time by writing times shown on an analog clock (a clock with an hour hand and a minute hand) and by setting the hands on an analog clock to show a specific time. To complete the exercises on this page, your child will need a paper clock or a real clock with an hour hand and a minute hand. You can make a clock from *Math Masters,* page 61. Ask your child to show you other times on his or her clock.

Please return this Home Link to school tomorrow.

MRB 80 81

1. Use your clock to show someone at home the time you do the following activities. Write the time under each activity.

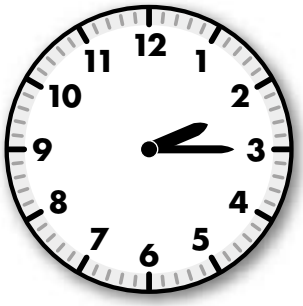
Eat dinner	Go to bed	Get up	Eat lunch
_____:_____	_____:_____	_____:_____	_____:_____

Write the time.

2.

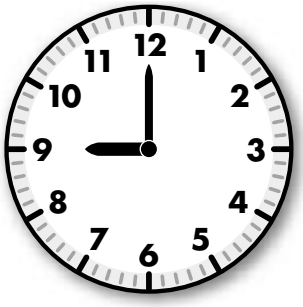
_____:_____

3.



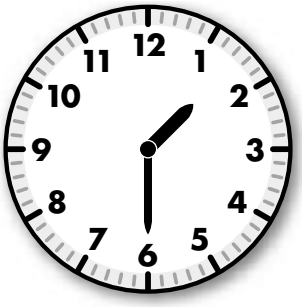
_____:_____

4.



_____:_____

5.



_____:_____

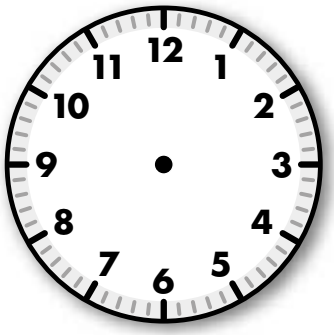
Name Date Time

HOME LINK 3•3

Times of Day *continued*

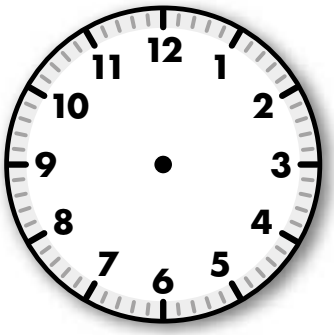
Draw the hands to match the time.

6.



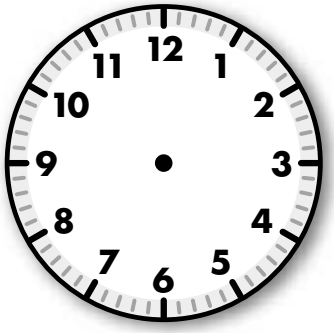
4:00

7.



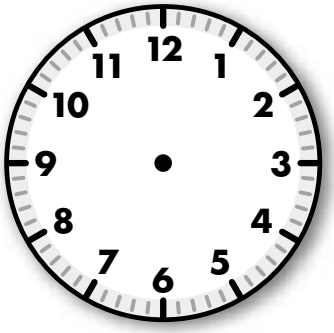
9:30

8.



12:45

9.



10:15

Practice

10.
$$\begin{array}{r} 7 \\ +\ 6 \\ \hline \end{array}$$

11. $7 + 9 = \_\_\_\_$

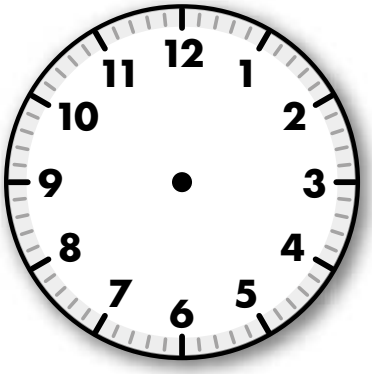
12. $11 - 5 = \_\_\_\_$

13.
$$\begin{array}{r} 16 \\ -\ 8 \\ \hline \end{array}$$

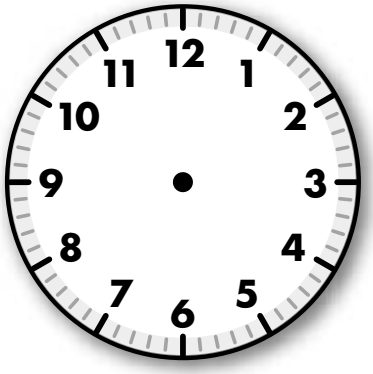
Name Date Time

LESSON 3•3

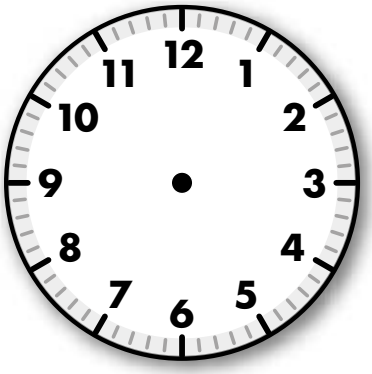
Clock Faces



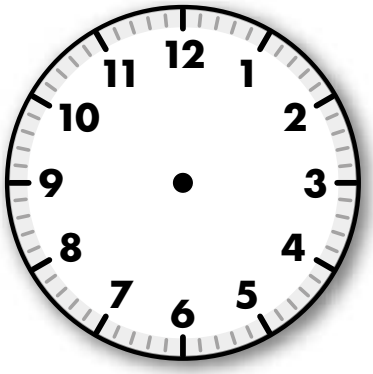
_____



_____



_____



_____

Name Date Time

LESSON 3•4

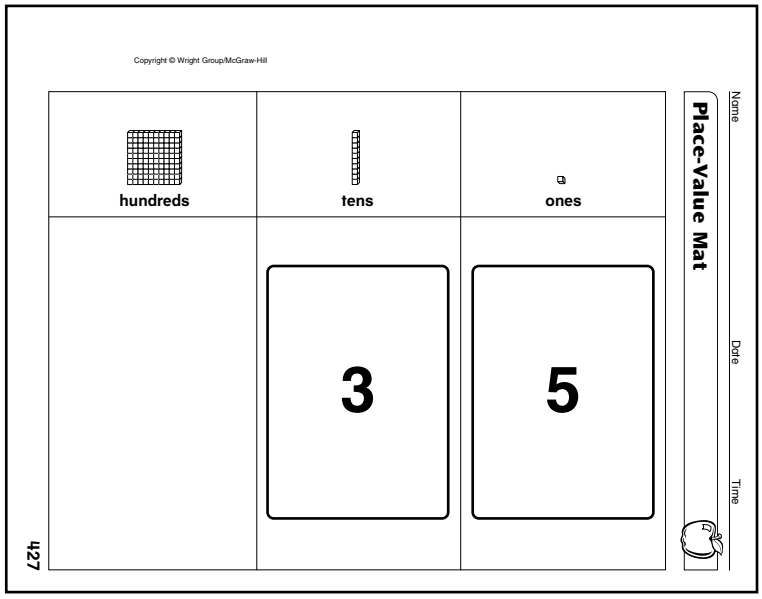
Build a Number

Do this activity with a partner.

Materials

- ☐ *Math Journal 1,* p. 61
- ☐ *Math Masters,* 427 (Place-Value Mat)
- ☐ base-10 blocks: 9 flats (optional), 9 longs, and 30 cubes
- ☐ number cards 0–9 (from the Everything Math Deck, if available)

1. Mix the cards and stack them facedown.
2. Take 2 cards.
3. Place the first card in the tens column of your Place-Value Mat. (If the card is a 0, put it back and take another.) Then put the second card in the ones column.



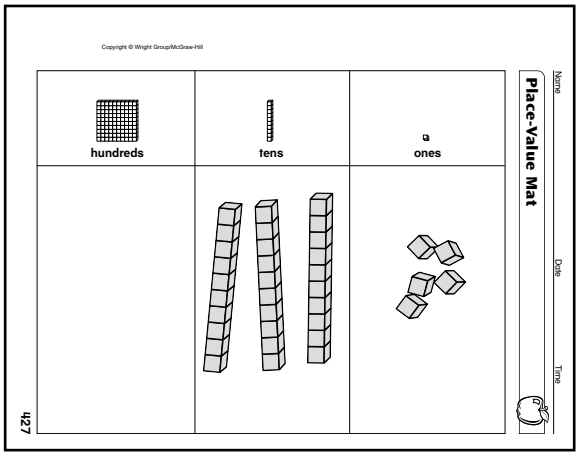
Name Date Time

LESSON 3·4

Build a Number *continued*

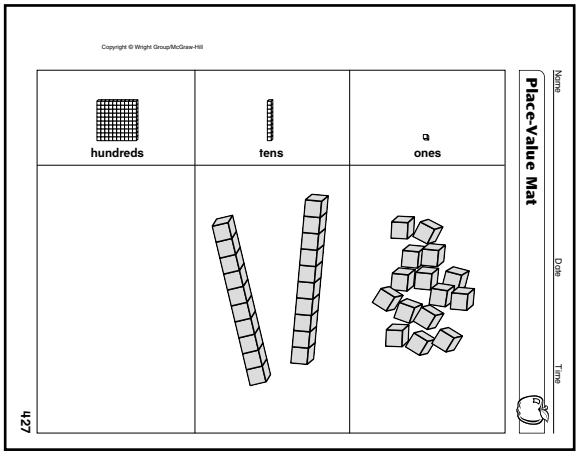
4. Build the number.

- Place longs in the tens column to show the tens digit.
- Place cubes in the ones column to show the ones digit.



5. Record your work in the table on journal page 61. Draw pictures of the longs and cubes you used.

6. Use the Place-Value Mat and blocks to build the same number in a different way. Draw the longs and cubes you used.



7. Build 3 or 4 more numbers in the same way. Record your numbers and draw pictures to show the two ways you built each number.

Try This

Take 3 cards instead of 2. Put 1 card in each column of the Place-Value Mat. Draw flats, longs, and cubes on journal page 61 to show your number.

Build the same number in a different way. Draw the blocks you used.

Name Date Time

LESSON 3•4

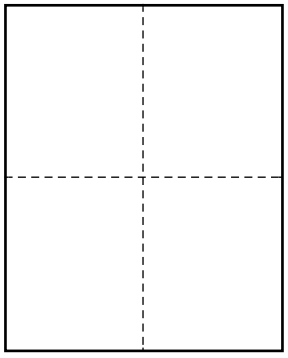
A Clock Booklet

Do this activity with a partner.

Materials

- ☐ at least 2 sheets of plain paper
- ☐ clock-face rubber stamp
- ☐ stamp pad
- ☐ scissors
- ☐ stapler

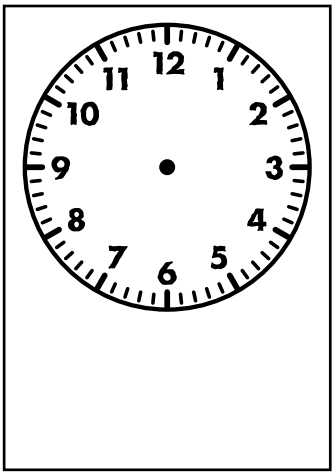
1. Each partner folds a sheet of paper into 4 parts.



2. Cut each sheet along the folds.

3. Set aside 2 of the small pieces of paper.
You will use them for covers later.

4. Stamp a clock face on each side of the other small pieces.

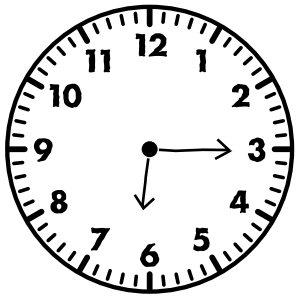


LESSON 3·4

A Clock Booklet *continued*

5. For each clock face:

- Think of a time. Help each other draw the hour and minute hands to show that time.
- Write the time as you would see it on a digital clock.



6 : 15

6. Stack the pieces. Put a piece without a clock face on the top. Put the other piece without a clock face at the bottom.

- Staple the left side of the pieces together to make a book.
- Write a title and your names on the front cover.

Follow-Up Activities

You and your partner can use your book to do these activities:

- Take turns. One partner covers the digital time on a page. The other partner tells what time is shown on the clock face.
- Work together to make up a story about one or more of the times shown in your booklet. Write your story on another piece of paper.

Name Date Time

LESSON 3•4

Geoboard Shapes

Materials per child ☐ *Math Journal 1,* p. 62

☐ geoboard ☐ rubber bands

Number of children 1, 2, 3, or 4

Do this activity on your own:

1. Make at least 4 shapes, designs, or pictures on your geoboard. Make things like a house, a boat, or a car.
2. Record your favorites on the geoboard dot paper on journal page 62.

Do this activity with a partner:

1. Make an easy shape on a geoboard. Make sure your partner can't see it.
2. Tell—but don't show—your partner how to make the shape.
3. Your partner makes the shape on another geoboard.
4. Compare the two shapes. How are they alike? How are they different? Did you give good directions?
5. Repeat the activity. This time your partner makes the shape first.

Do this activity in a small group:

1. Agree on a shape that everyone will make. Describe the shape in words, but don't draw it.
2. Everyone in your group makes the shape on his or her own geoboard.
3. Compare results. How are your shapes the same? How are they different?

Name Date Time

HOME LINK 3·4

"What's My Rule?" with Blocks

Family Note Your child will complete the tables on this page by drawing tens and ones for 2-digit numbers. More than one picture can be drawn for a number. For example, to show 26, your child might draw 2 tens and 6 ones, 1 ten and 16 ones, or 26 ones. The symbol | stands for 10, and the symbol ▪ stands for 1.

Please return this Home Link to school tomorrow.

MRB 11

1. Draw simple pictures of base-10 blocks to complete the table.

Rule
Add 12

In	Out	Out in a Different Way
▪▪▪	| ▪▪▪▪▪	▪▪▪▪▪ ▪
|	|| ▪▪	
|| ▪▪▪▪		
|| ▪▪▪▪▪▪		

2. Write the rule. Then complete the table.

Rule

In	Out	Out in a Different Way
||||| ▪▪▪	||||| ▪▪▪▪▪ ▪▪▪▪	||||| ▪▪▪▪▪ ▪▪▪▪▪
| ▪▪▪▪▪▪ ▪▪	|| ▪▪▪▪▪ ▪▪▪▪▪	| ▪▪▪▪▪ ▪▪▪▪▪
|||| ▪		
▪▪▪▪▪		

Name Date Time

LESSON 3•5

Counting Pockets

Name _____

Math Message: Counting Pockets

1. How many pockets are in the clothes you are wearing now?

2. Count the pockets on your shirt, on your pants or skirt, and on anything else that you are wearing.

3. Complete the diagram.

Total		
Shirt	**Pants or Skirt**	**Other**

4. Write your total number of pockets very large on the back of this sheet.

Name _____

Math Message: Counting Pockets

1. How many pockets are in the clothes you are wearing now?

2. Count the pockets on your shirt, on your pants or skirt, and on anything else that you are wearing.

3. Complete the diagram.

Total		
Shirt	**Pants or Skirt**	**Other**

4. Write your total number of pockets very large on the back of this sheet.

Name Date Time

LESSON 3•5

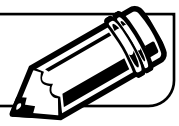
Pockets Data Table

Pockets	Children	
	Tallies	Number
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13 or more		

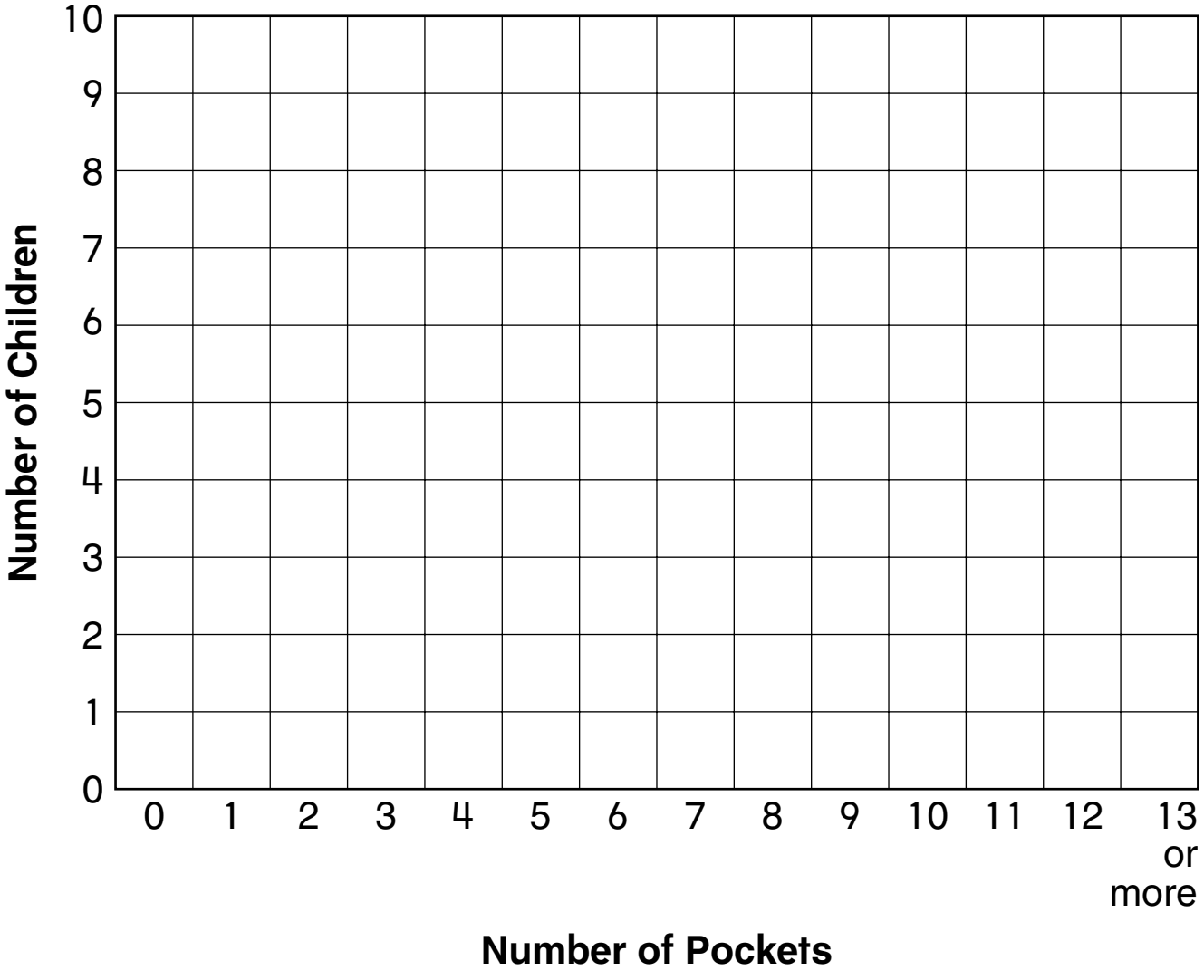
Name Date Time

LESSON 3•5

Graphing Pockets Data



How Many Pockets?



Name Date Time

HOME LINK 3•5

Pockets Bar Graph

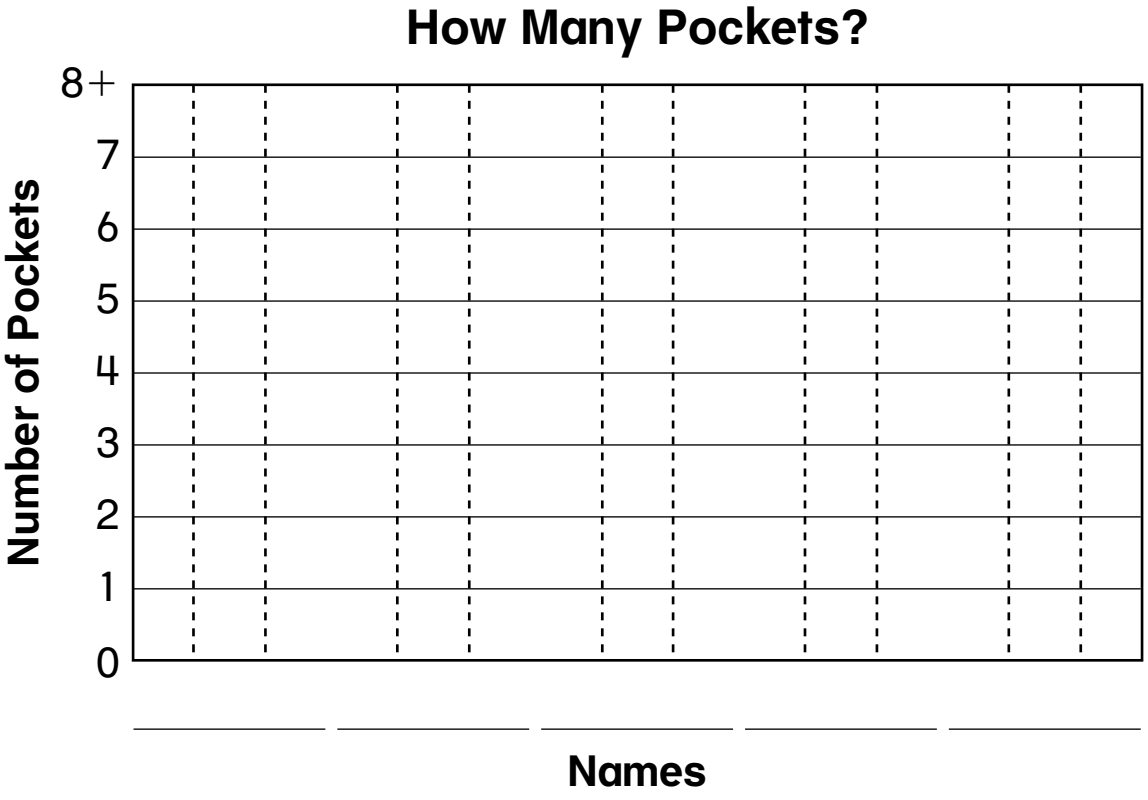
Family Note Help your child fill in the table below. Then display the data by making a **bar graph.** *Please return this Home Link to school tomorrow.*

MRB 44

1. Pick five people. Count the number of pockets that each person's clothing has. Complete the table.

Name	Number of Pockets

2. Draw a bar graph for your data. First, write the name of each person on a line at the bottom of the graph. Then color the bar above each name to show how many pockets that person has.

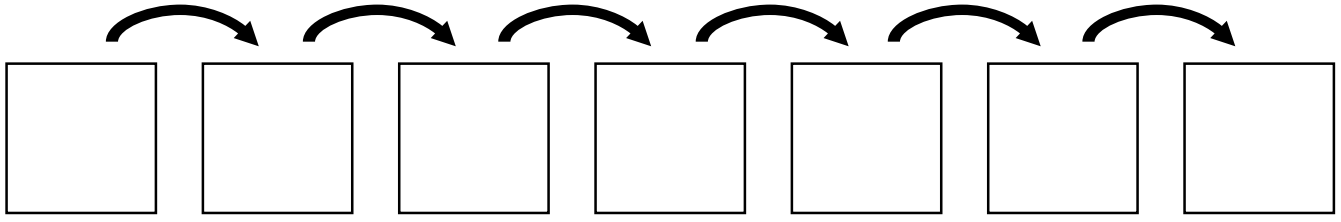


Name Date Time

LESSON 3•6

Frames-and-Arrows Diagrams

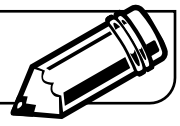
Rule



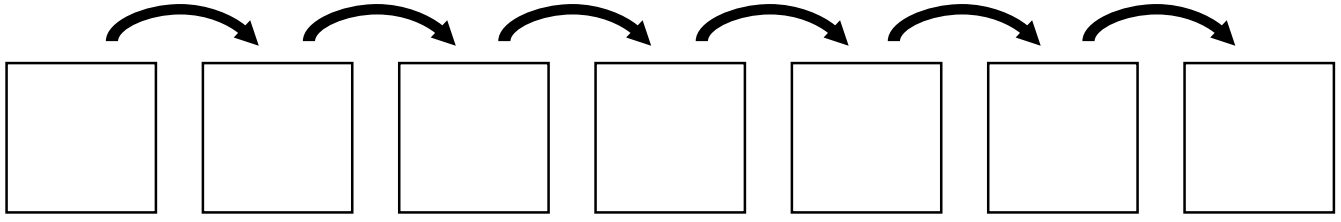
Name Date Time

LESSON 3•6

Frames-and-Arrows Diagrams



Rule



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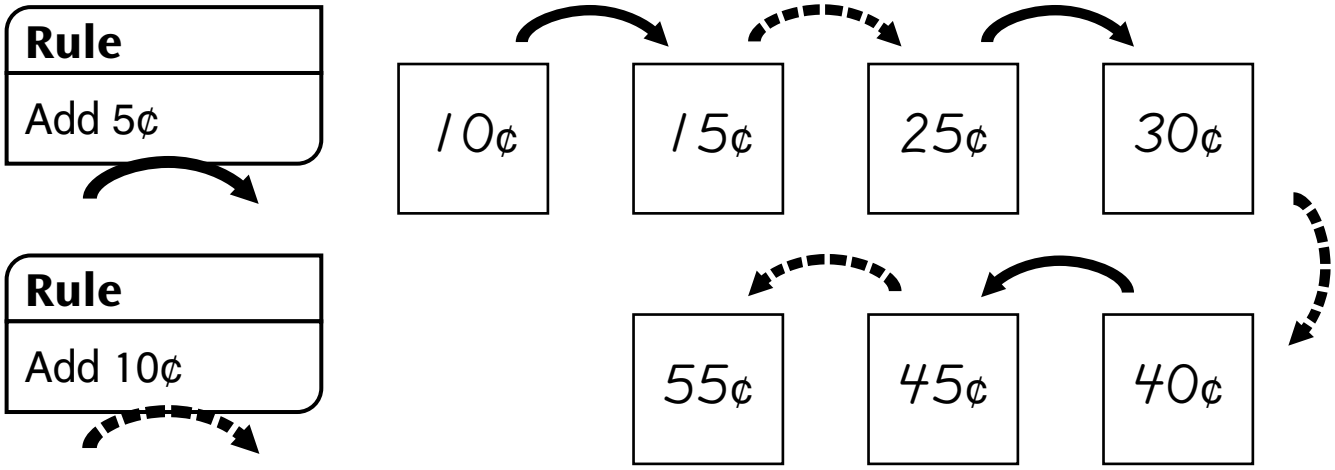
Name Date Time

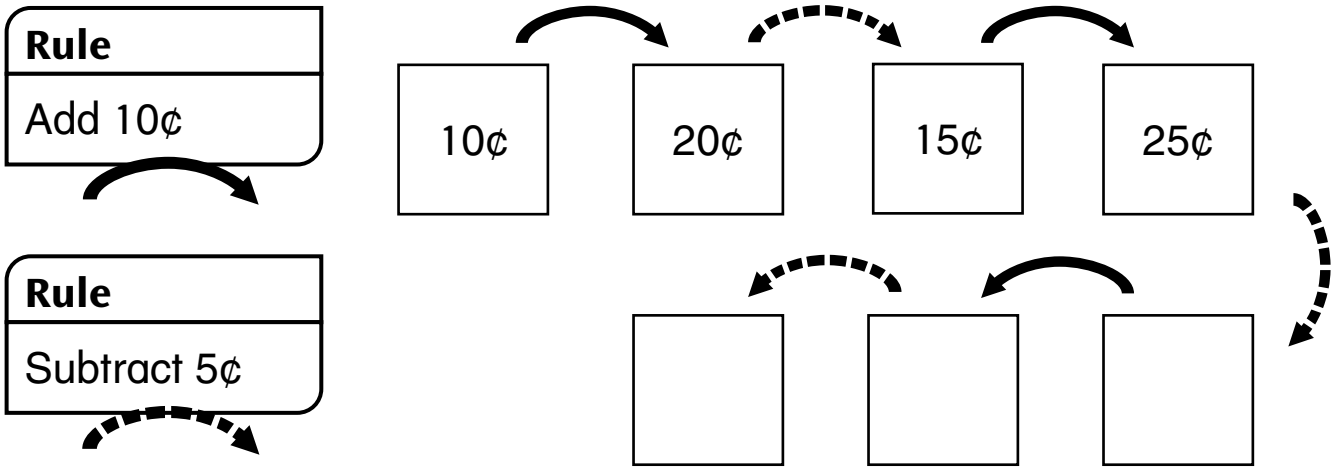
LESSON 3•6

Two-Rule Frames and Arrows

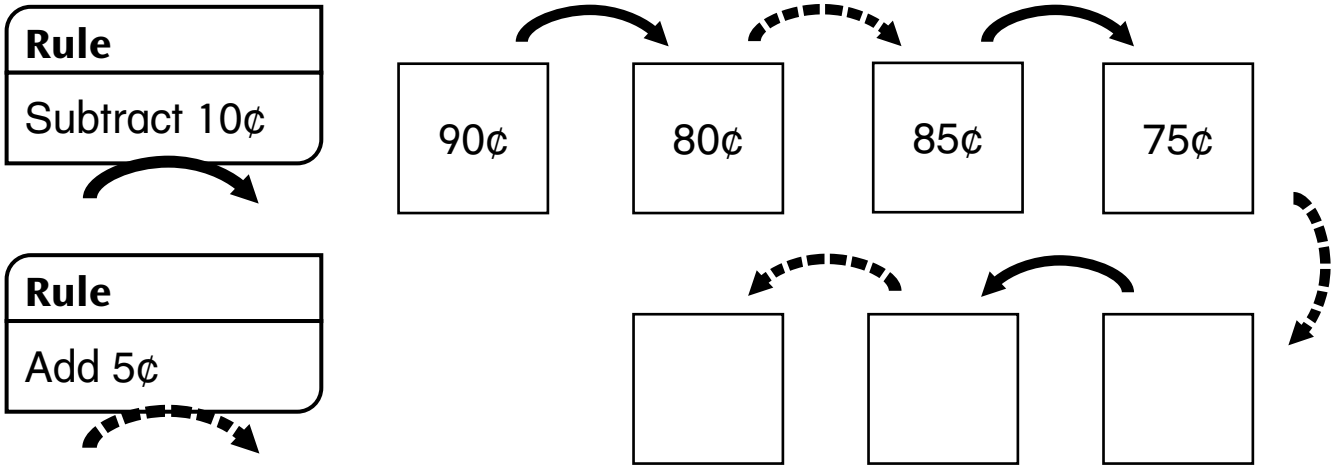
Example:



1.



2.

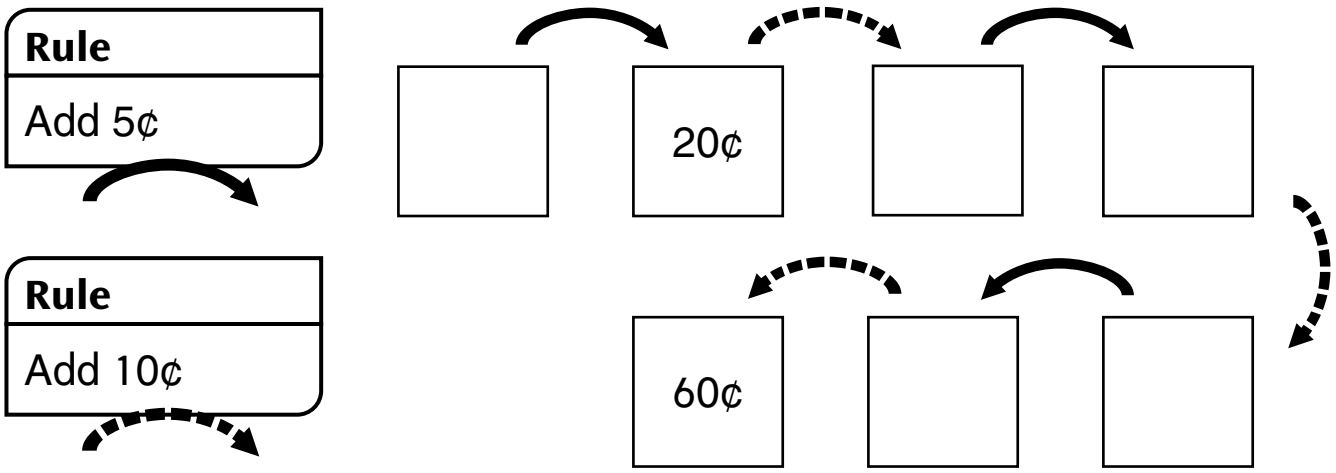


Name Date Time

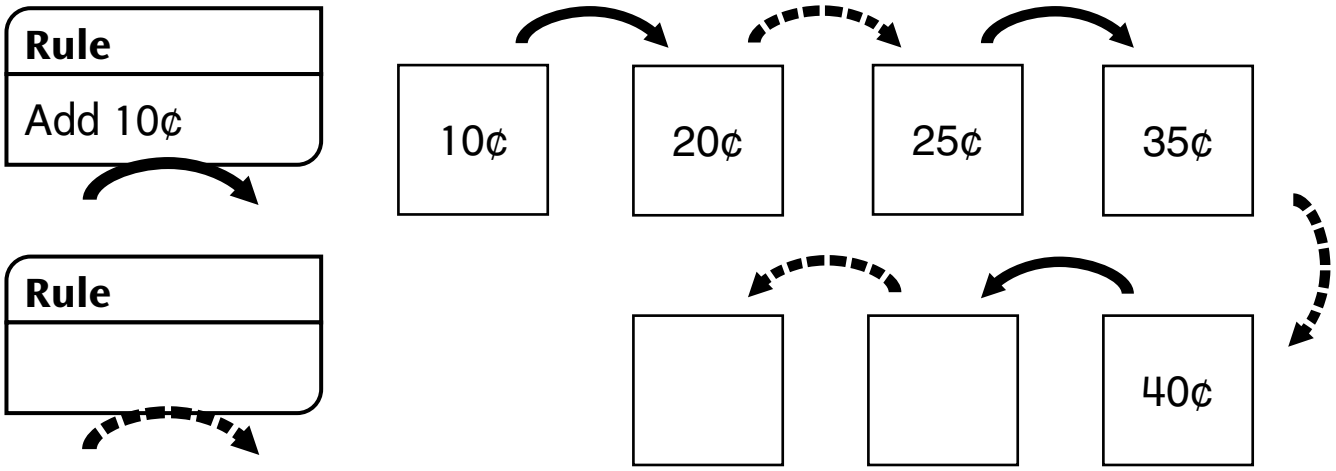
LESSON 3•6

Two-Rule Frames and Arrows *cont.*

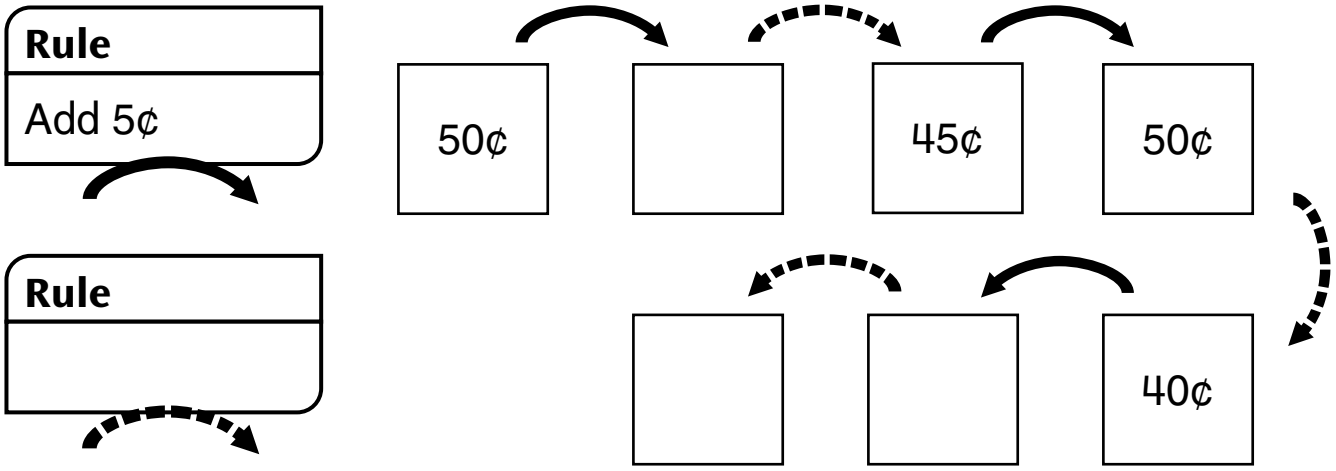
3.



4.



5.



Name Date Time

HOME LINK 3•6

Frames-and-Arrows Problems

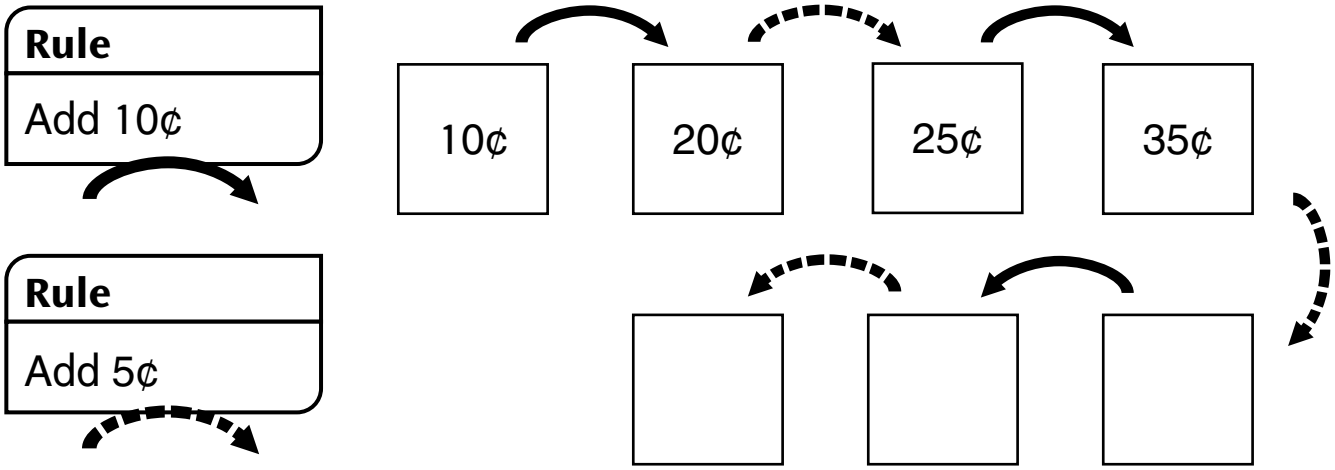
Family Note Frames-and-Arrows diagrams show sequences of numbers—numbers that follow one after the other according to a rule.

The problems on this Home Link are a variation of the Frames-and-Arrows problems your child brought home in the last unit. In each of the problems below, two different rules are represented by two different arrows.

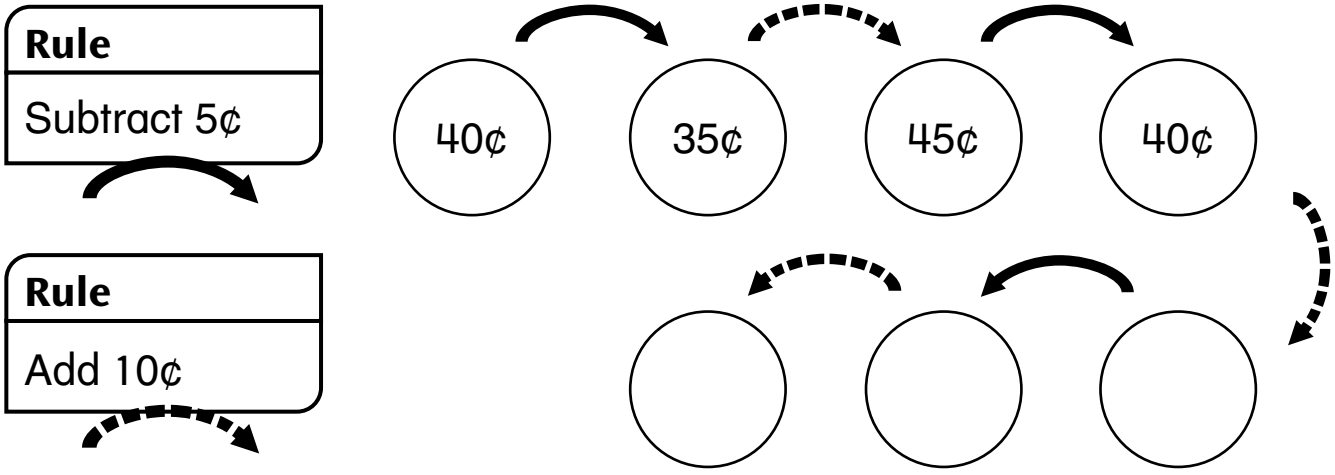
Please return this Home Link to school tomorrow.

Show someone at home how to solve these Frames-and-Arrows problems. Use coins to help you.

1.



2.

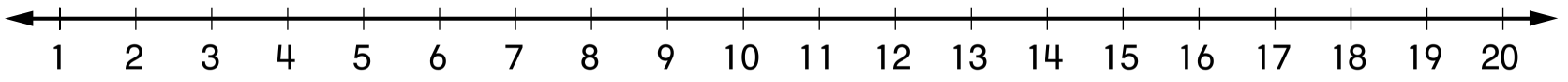


Name Date Time

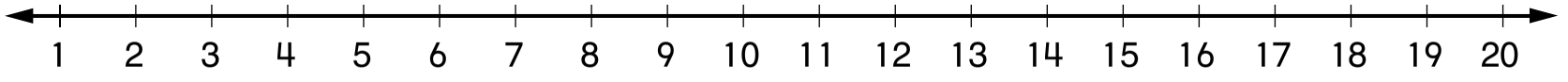
LESSON 3·6

Counting on the Number Line

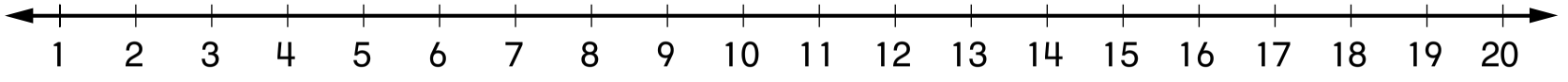
1.



2. Start at 3. Red rule is Add 2. Blue rule is Add 4.

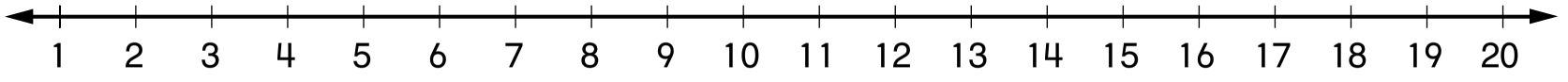


3. Start at 1. Red rule is Add 4. Blue rule is Add 2.



Try This

4. Start at 19. Red rule is Subtract 4. Blue rule is Subtract 2.



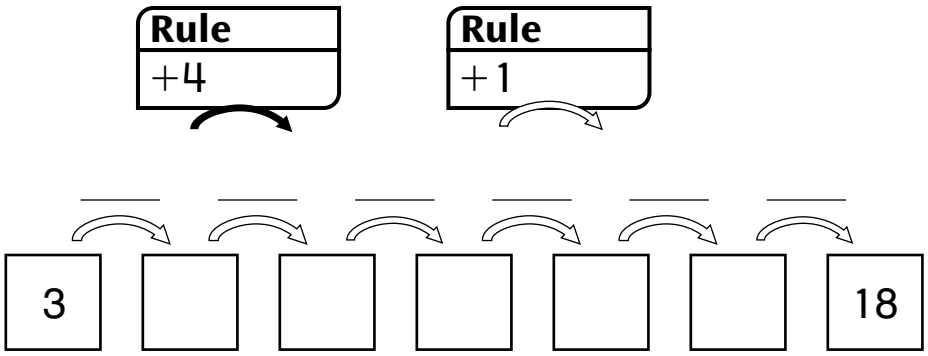
Name Date Time

LESSON 3•6

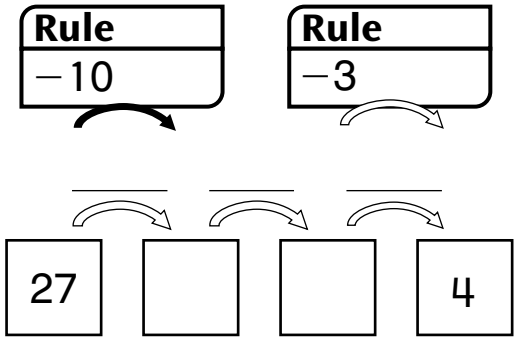
Frames-and-Arrows Puzzles

Each puzzle has 2 rules. Figure out where to place the rules to solve the problems.

1.



2.



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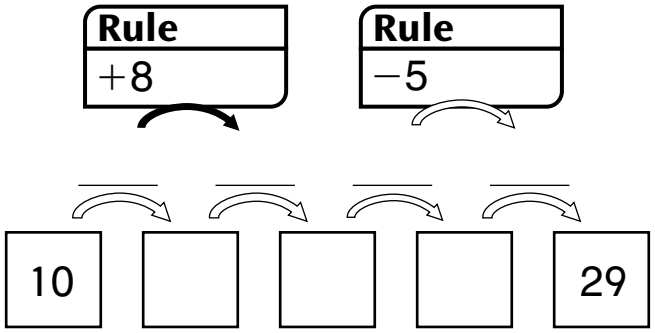
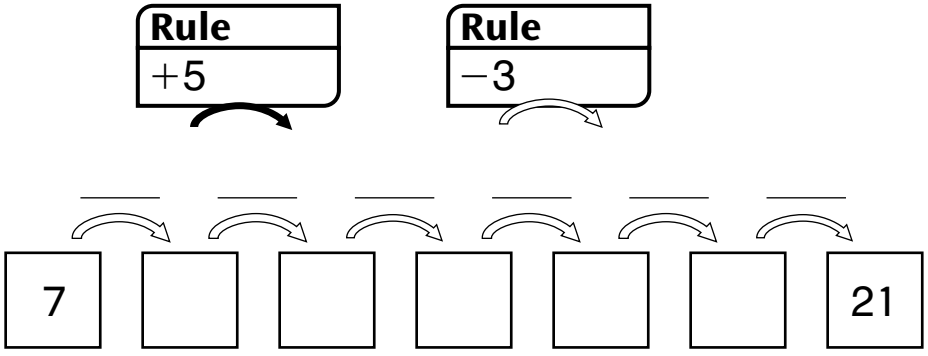


Try This

4.



Name Date Time

HOME LINK 3•7

Change at a Garage Sale

Family Note Encourage your child to make change by counting up. Using real coins and dollar bills will make this activity easier. *For example:*

- Start with the cost of an item—65 cents.
- Count up to the money given—$1.00.

One way to make change: Put down a nickel and say "70." Then put down 3 dimes and say "80, 90, 1 dollar." *Another way:* Put down 3 dimes and say "75, 85, 95." Then put down 5 pennies and say "96, 97, 98, 99, 1 dollar."

The Practice section in the Home Link provides a review of previously learned skills.

Please return this Home Link to school tomorrow.

Pretend you are having a garage sale. Do the following:

- Find small items in your home to "sell."
- Give each item a price less than $1.00.
  Give each item a different price.
- Pretend that customers pay for each item with a $1 bill.
- Show someone at home how you would make change by counting up. Use Ⓟ, Ⓝ, Ⓓ, and Ⓠ.
- Show another way you can make change for the same item.

Example:

The customer buys a pen for 65¢.

One way I can make change: Ⓝ Ⓓ Ⓓ Ⓓ

Another way I can make change: Ⓓ Ⓓ Ⓓ Ⓟ Ⓟ Ⓟ Ⓟ Ⓟ

Name Date Time

HOME LINK 3•7

Change at a Garage Sale *continued*

1. The customer buys _____ for _____.

One way I can make change: _____

Another way I can make change: _____

2. The customer buys _____ for _____.

One way I can make change: _____

Another way I can make change: _____

3. The customer buys _____ for _____.

One way I can make change: _____

Another way I can make change: _____

4. The customer buys _____ for _____.

One way I can make change: _____

Another way I can make change: _____

Practice

5. 7 + 5 = ____

6. 8 + 6 = ____

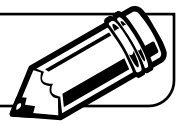
7.
$$\begin{array}{r} 4 \\ +\ 9 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 3 \\ +\ 7 \\ \hline \end{array}$$

Name Date Time

LESSON 3•7

Coin Puzzles



Use the clues to solve the coin puzzles.

Example:

Clue 1: I have two coins.

Clue 2: Together they are worth 30¢.

Clue 3: One is not a nickel.

Coin Puzzle: What are the coins? *A quarter and a nickel*

---

1. Clue 1: I have 46¢.

Clue 2: I have 7 coins.

Coin Puzzle: Which coins do I have?

---

2. Clue 1: I have 49¢ in one pocket.

Clue 2: I have 16¢ in another pocket.

Clue 3: When I put all my coins on the table, I count 10 pennies.

Clue 4: None of the coins is a nickel.

Coin Puzzle: What are the coins?

---

3. Clue 1: I have 5 coins.

Clue 2: I have a total of 46¢.

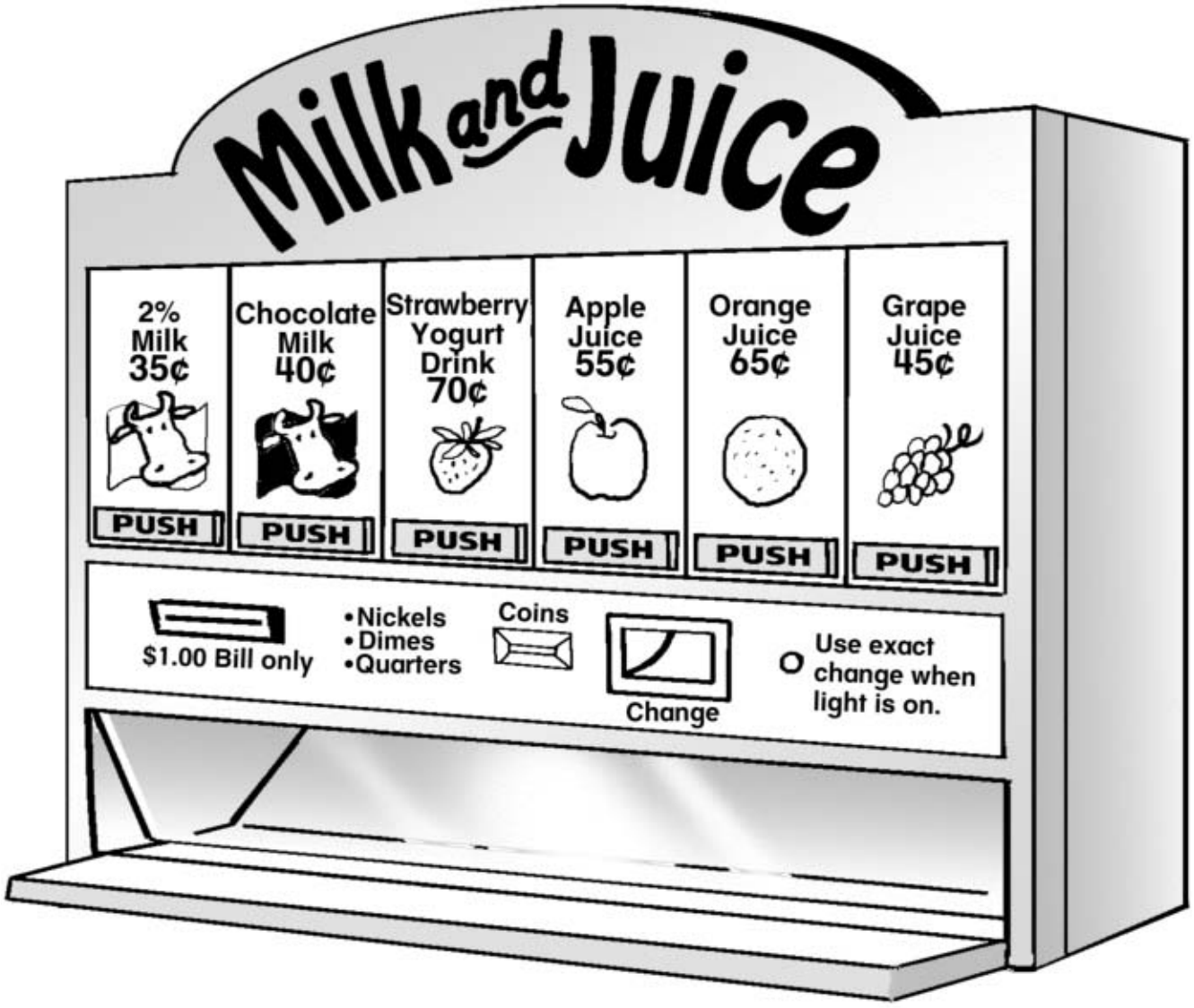
Clue 3: Three of the coins are not nickels.

Coin Puzzle: Which coins do I have?

Name Date Time

LESSON 3•8

Milk and Juice Vending Machine



Name Date Time

HOME LINK 3•8

Counting Up to Make Change

Family Note Help your child identify the amount of change that he or she would receive by "counting up" from the price of the item to the amount of money that was used to pay for the item. It may be helpful to act out the problems with your child using real coins and bills.

Please return this Home Link to school tomorrow.

Complete the table.

I buy:	It costs:	I pay with:	My change is:
a bag of potato chips	70¢	ⓆⓆⓆ	_____¢
a box of crayons	65¢	$1	_____¢
a pen	59¢	ⓆⓆⓆ	_____¢
an apple	45¢	ⒹⒹⒹⒹⒹ	_____¢
a notebook	73¢	ⓆⓆⒹⒹⓃ	_____¢
a ruler	48¢	$1	_____¢
	_____	_____	_____¢
	_____	_____	_____¢

Practice

1. 12 − 9 = ____ **2.** 15 − 7 = ____ **3.** 13 − 6 **4.** 17 − 4

HOME LINK 3•9

Unit 4: Family Letter

Addition and Subtraction

In Unit 4, children will use addition and subtraction stories to develop mental-arithmetic skills. Mental arithmetic is computation done in one's head or by drawing pictures, making tallies, or using manipulatives (counters, money, number lines, and number grids—no calculators, though). Children can also use their own solution strategies.

A second grader uses a number grid to solve 5 + 9.

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

Addition has two basic meanings: *putting together* and *changing to more.* In this unit, children will use **parts-and-total diagrams** and **change diagrams** to help them organize information in addition stories that either "put together" or "change to more." See the vocabulary section on page 87 to learn more about these diagrams.

Parts-and-Total Diagram

Total ?	
Part 20	**Part** 16

Change Diagram

Start	Change	End
20	+6	?

Children will also develop estimation skills by solving problems that involve purchases. For example, your child will estimate whether $5.00 is enough to buy a pen that costs $1.69, a notebook that costs $2.25, and a ruler that costs 89¢.

In the last part of this unit, children will learn paper-and-pencil strategies for addition and will continue to gain hands-on experience with thermometers, money, tape measures, and rulers. Home Links 4-8 and 4-9, which you will receive later, will give you more information on the paper-and-pencil strategies that your child will be learning.

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

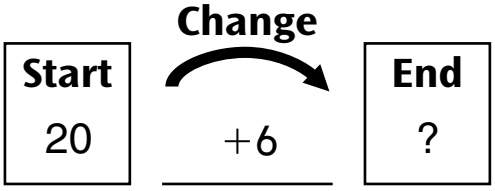
Vocabulary

Important terms in Unit 4:

change-to-more number story A number story having a starting quantity that is increased so the ending quantity is more than the starting quantity.

For example: *Nick has 20 comic books. He buys 6 more. How many comic books does Nick have now?*

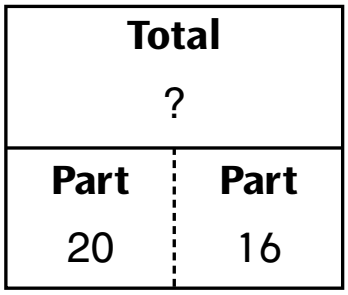
change diagram A device used to organize information in a change-to-more or change-to-less number story. The change diagram below organizes the information in Nick's comic book story above.



mental arithmetic Computation done totally or partially in one's head, using a variety of strategies.

parts-and-total number story A number story in which two or more quantities (parts) are combined to form a total quantity. For example: *Carl baked 20 cookies. Sam baked 16 cookies. How many cookies did Carl and Sam bake in all?*

parts-and-total diagram A diagram used to organize information in a parts-and-total number story. The parts-and-total diagram below organizes the information in Carl's cookie story.



estimate (1) An answer close to, or approximating, an exact answer. (2) To make an estimate.

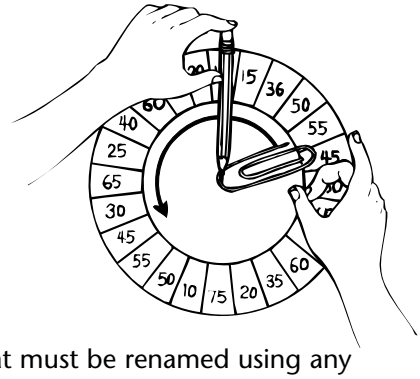
algorithm A step-by-step set of instructions for doing something—for example, for solving addition or subtraction problems.

Building Skills through Games

In Unit 4, your child will practice addition and subtraction skills by playing the following games:

Addition Spin

A "Spinner" and a "Checker" take turns adding two numbers and checking the sum. After five turns, each player uses a calculator to find the sum of his or her scores. The player with the higher total wins.



Name That Number

Each player turns over a card to find a number that must be renamed using any combination of five faceup cards.

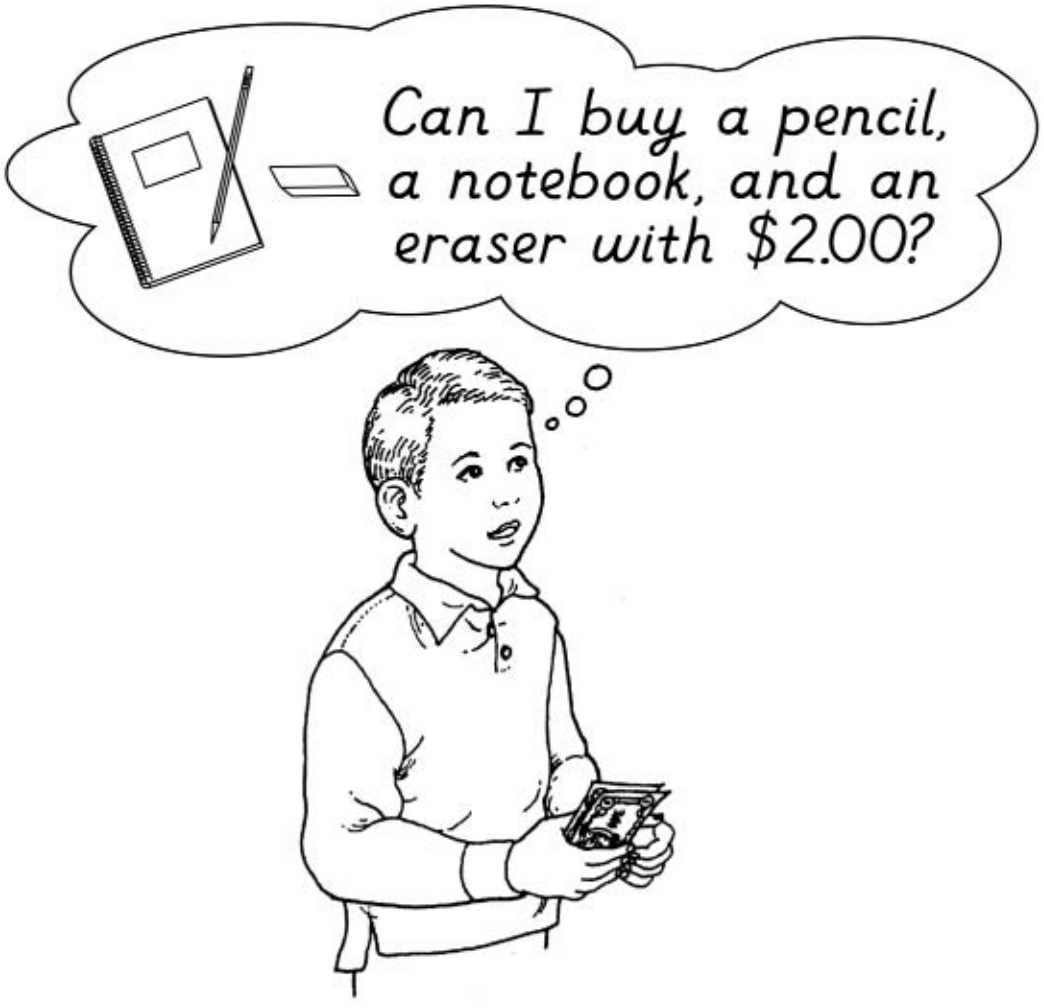
Fact Extension Game

Players find sums of 2-digit numbers and multiples of ten.

Do-Anytime Activities

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

1. Encourage your child to show you addition and subtraction strategies as these concepts are developed during the unit.
2. Make up number stories involving estimation. For example, pretend that your child has $2.00 and that he or she wants to buy a pencil marked 64¢, a tablet marked 98¢, and an eraser marked 29¢. Help your child estimate the total cost of the three items (without tax) and determine whether there is enough money to buy them. If appropriate, you can also ask your child to estimate the amount of change due.
3. Look at weather reports in the newspaper and on television and discuss differences between high and low temperatures. Also note the differences between the Fahrenheit and Celsius scales.



As You Help Your Child with Homework

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

Home Link 4•1

1. 18 grapes; 11 + 7 = 18

2. 38 cards; 30 + 8 = 38

3. 52 pounds; 42 + 10 = 52

4. 27 **5.** 80 **6.** 83

7. 10 **8.** 17 **9.** 70

10. 30 **11.** 66 **12.** 80

Home Link 4•2

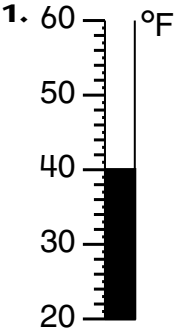
1. 47 pounds; 17 + 30 = 47

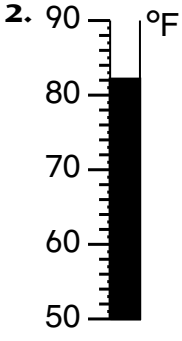
2. 75 pounds; 45 + 30 = 75

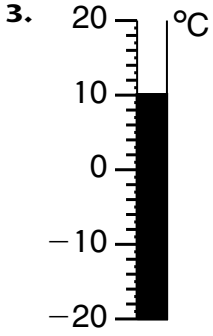
3. 60 pounds; 15 + 45 = 60

4. 92 pounds; 17 + 45 + 30 = 92

Home Link 4•3

1. 

2. 

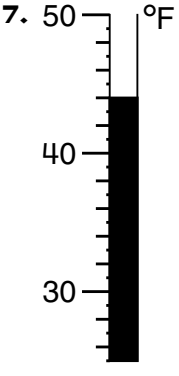
3. 

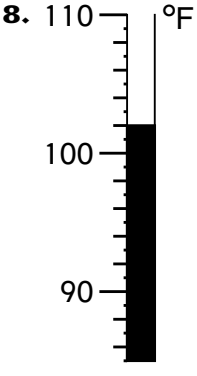
4. a. 14 **b.** 13 **c.** 6 **d.** 15

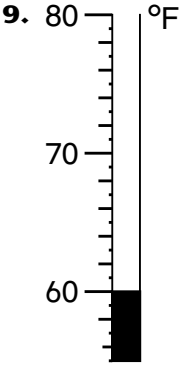
Home Link 4•4

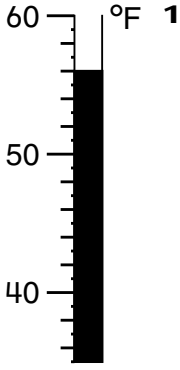
1. 20°F **2.** 34°F **3.** 52°F

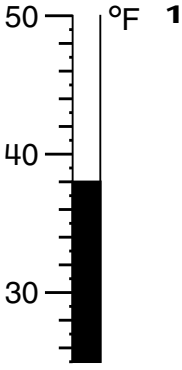
4. 96°F **5.** 48°F **6.** 73°F

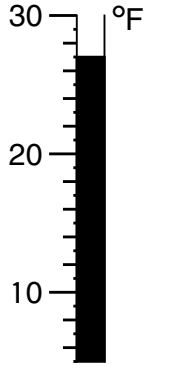
7. 

8. 

9. 

10. 

11. 

12. 

13. 70 **14.** 35 **15.** 97

16. 26 **17.** 50 **18.** 68

Home Link 4•5

1. no **2.** yes **3.** no **4.** yes

5. 100 **6.** 46 **7.** 47

Home Link 4•6

1. 30 marbles; 20 + 10 = 30

2. 54 cookies; 30 + 24 = 54

3. 100 **4.** 140 **5.** 79 **6.** 83

7. 94 **8.** 77

Home Link 4•7

2. About 20 inches

Home Link 4•8

1. 76 **2.** 100 **3.** 83 **4.** 120

5. 98 **6.** 90 **7.** 93 **8.** 85

9. 71 **10.** 83 **11.** 169 **12.** 544

Home Link 4•9

1. 89 **2.** 108 **3.** 83 **4.** 94

5. 185 **6.** 363