Unit 2: Family Letter

Home Link 1-13

NAME DATE TIME

Whole Number Place Value and Operations

Students begin Unit 2 by exploring place-value relationships in multidigit numbers. They learn that a digit in a particular place-value position is worth 10 times as much when it moves one place to the left and $\frac{1}{10}$ as much when it moves one place to the right. In upcoming units students will learn that this pattern also applies to decimal numbers. Understanding our place-value system helps build an important foundation for estimating and computing with larger numbers. This unit also introduces students to powers of 10 and exponential notation. They notice and explain patterns in the number of zeros in the product when multiplying by powers of 10. Students apply their understanding of these patterns to make estimates for multiplication problems and check the reasonableness of answers.

The rest of the unit focuses on multiplying and dividing whole numbers. In previous grades of *Everyday Mathematics*® students learned several multiplication methods, including partial-products multiplication. In fifth grade, students learn to multiply whole numbers using U.S. traditional multiplication. This is the first exposure to U.S. traditional multiplication, so many students may find the algorithm challenging. Do not expect your child to use it easily right away. Students will have many opportunities throughout the year to practice using this algorithm. At home, challenge your child to a game of *Multiplication Top-It* to practice U.S. traditional multiplication or *Multiplication Bull's Eye* to practice estimating and checking the reasonableness of answers.

Finally, students review extended division facts and discuss the relationship between multiplication and division. They develop a strategy for dividing mentally and revisit partial-quotients division, a division strategy they first encountered in *Fourth Grade Everyday Mathematics*. Partial-quotients division uses "easy" multiplication facts and emphasizes the value of the digits being divided. Students often divide more accurately and with greater understanding using partial quotients than with traditional long division. Students will learn how to divide using U.S. traditional division in *Sixth Grade Everyday Mathematics*. In previous grades students divided multidigit numbers by 1-digit numbers. In this unit they extend their understanding of partial quotients to larger numbers (up to 4-digit dividends and 2-digit divisors). Partial-quotients division and other division methods are explained in the *Student Reference Book*. Students will use these strategies to solve division number stories and learn how to interpret remainders.

Please keep this Family Letter for reference as your child works through Unit 2.

Vocabulary

Important terms in Unit 2:

area model A model for multiplication in which the length and width of a rectangle represent the factors, and the area of the rectangle represents the product.

dividend In division, the number that is being divided. For example, in $35 \div 5 = 7$, the dividend is 35.

divisor In division, the number that divides another number. For example, in $35 \div 5 = 7$, the divisor is 5.

expanded form A way of writing a number as the sum of the values of each digit. For example, in expanded form, 356 can be written $300 + 50 + 6$ or $(3 * 100) + (5 * 10) + (6 * 1)$.

exponent A small, elevated number used in *exponential notation* to indicate how many times a factor should be repeated. For example, in 10^4, the exponent is 4.

exponential notation A way to show repeated multiplication by the same factor. For example, 10^3 is exponential notation for $10 * 10 * 10$.

number model A number sentence or expression that models a number story or real-world situation.

place value A system in which the value of a digit depends on its place or position in a number. In our base-10 system for writing numbers, moving a digit one place to the left makes that digit worth 10 times as much. Moving a digit one place to the right makes that digit worth $\frac{1}{10}$ as much. For example, in the number 450 the 4 in the hundreds place is worth 400, but in the number 45 the 4 in the tens place is worth 40.

power of 10 A whole number that can be written as a product of 10s. For example, 100 is equal to $10 * 10$ and can be written 10^2. 100 is called "the second power of 10," "10 to the second power," or "10 squared."

quotient The result of dividing one number by another number. For example, in $35 \div 5 = 7$, the quotient is 7.

remainder The amount left over when one number is divided by another number. For example, if 38 books are divided into 5 equal piles, there will be 7 books per pile, with 3 books left over. Represented in symbols, this is $38 \div 5 \rightarrow 7$ R3.

standard notation The most familiar way of representing whole numbers, integers, and decimals. In standard notation numbers are written using the base-10 *place-value* system. For example, standard notation for three hundred fifty-six is 356.

Do-Anytime Activities

To work with your child on the concepts taught in Unit 2, try these activities:

1. As you encounter numbers in daily life, ask your child to read them aloud and identify digits in the various places—ten-thousands, thousands, hundreds, tens, and ones.
2. Have your child estimate quantities of items that can be multiplied. For example, if there are 25 boxes of cereal on one shelf at the grocery store and there are 8 shelves of cereal, how many boxes might there be in the whole store?
3. Read the book *A Remainder of One* by Elinor J. Pinczes.
4. Ask your child to write number stories that can be solved using division and help him or her solve these problems. Identify how the quotient and remainder are used to answer the question in the number story.

Building Skills through Games

In Unit 2 your child will play the following games to practice interpreting exponential notation, multiplying, and dividing. Detailed instructions for each game may be found in the *Student Reference Book*. Many of the games can be played at home with a regular deck of playing cards by simply removing the face cards and having the ace represent 1.

Division Top-It: Larger Numbers See *Student Reference Book*, page 325. Two to four players need number cards 0–9 (4 of each). *Division Top-It: Larger Numbers* provides practice dividing larger numbers.

Multiplication Bull's Eye See *Student Reference Book*, page 313. Two players need number cards 0–9 (4 of each) and a 6-sided die. *Multiplication Bull's Eye* provides practice estimating products of 2- and 3-digit numbers.

Multiplication Top-It: Larger Numbers See *Student Reference Book*, page 325. Two to four players need number cards 0–9 (4 of each). *Multiplication Top-It: Larger Numbers* provides practice multiplying larger numbers.

Number Top-It See *Student Reference Book*, page 316. Two to five players need number cards 0–9 (4 of each). *Number Top-It* helps students apply their understanding of whole-number place value.

Power Up See *Student Reference Book*, page 318. Two players need two 6-sided dice. *Power Up* provides practice converting from exponential notation to standard notation and helps students notice patterns with powers of 10.

As You Help Your Child with Homework

As your child brings assignments home, you might 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 2-1

1. 58,660 **2.** 92,776 **3.** 7,244

4. 330,600 **5.** 43,342 **6.** 9,864,320

7. 20 **8.** 50 **9.** 12

10. 5 **11.** 31 **12.** 48

Home Link 2-2

1. 1,000,000 **2.** 3,000,000

3. 1,000 **4.** 24,000 **5.** 300 < 2,000

6. 150,000,000 < 200,000,000

7. 2,700,000,000 > 90,000,000

8. 16 cubic feet **9.** $26.00

Home Link 2-3

1. Yes; Sample answer: To estimate the number of prizes Renee has, I rounded 47 to 50 and 22 to 20. I multiplied 50 and 20 to get 1,000. If each student wins 2 prizes, that's 380 * 2. I can round 380 to 400 and multiply 400 * 2. I know Renee needs about 800 prizes, so she has enough.

2. No; Sample answer: If each student wins 3 prizes, Renee needs 380 * 3 prizes. If I round 380 to 400, then 400 * 3 is 1,200. Renee only has about 1,000 prizes, so she doesn't have enough.

3. 42,000,000 **4.** 80

5. Sample answer: $3 * 10^4$

6. Sample answer: $7 * 10^7$

Home Link 2-4

1. 336 **2.** 384

Sample answers given for Problems 3–6.

3. $300 + 90 + 7$

4. $1 * 1{,}000 + 2 * 100 + 6 * 10 + 8 * 1$

5. $4{,}000 + 80 + 2$

6. $(2 * 10^4) + (9 * 10^3) + (1 * 10^2) + (4 * 10^1) + (1 * 10^0)$

Home Link 2-5

1–2. Answers vary.

3. 10^2 **4.** 10^4 **5.** 10^8 **6.** 10^3

Home Link 2-6

1–4. Answers vary.

Estimates vary for Problems 5 and 6.

5. 2,864 **6.** 1,508

Home Link 2-7

Estimates vary for Problems 2–6.

2. 4,032 **5.** 2,457 **6.** 4,186

7a. 70,000 **7b.** 70,000

8a. 800 **8b.** 800

9a. 1,800,000 **9b.** 1,800,000

Home Link 2-8

Estimates vary for Problems 1–5.

1. 4,950 **2.** 132,894 **3.** 17,220

4. 31,487 **5.** 7,626

7a. 1,500,000 **7b.** 1,500,000

8a. 240,000 **8b.** 240,000

9a. 14,000,000 **9b.** 14,000,000

Home Link 2-9

1. 6,000 **2.** 300

Estimates vary for Problems 3–4.

3. 2,033 **4.** 83,850

Home Link 2-10

1. 3, 6, 9, 12, 15, 18, 21, 24, 27, 30; Sample answer: $30 + 27$; 19

2. 8, 16, 24, 32, 40, 48, 56, 64, 72, 80; Sample answer: $80 + 16$; 12

Estimates vary for Problems 3–4.

3. 1,564 **4.** 4,170

Home Link 2-11

1. 10, because there are 10 [11s] in 110.

Estimates vary for Problems 2–5.

2. 32 R5 **3.** 24 R0

4. 2,253 **5.** 8,084

Home Link 2-12

1. $100 * 18 = 1{,}800$; $50 * 18 = 900$; $20 * 18 = 360$; $10 * 18 = 180$; $5 * 18 = 90$; $2 * 18 = 36$

2. Sample estimate: $1{,}800 / 18 = 100$; 108 R10

Estimates vary for Problems 3–4.

3. 77 R7 **4.** 34 R2

Home Link 2-13

1. 4 R4; 4 pizzas; Ignored it; The $4 left over won't buy another pizza.

2. 7 R10, 8 bins; Rounded the quotient up; 7 bins will hold 140 books. One more bin is needed for the 10 books left over.

Estimates vary for Problems 3–4.

3. 12 R10 **4.** 14 R7

Solving Place-Value Riddles

Home Link 2-1

NAME DATE TIME

SRB 66-67

Solve the number riddles.

① I have 5 digits.
My 5 is worth 50,000.
My 8 is worth 8,000.
One of my 6s is worth 60.
The other is worth 10 times as much.
My other digit is a 0.

What number am I?

_____

② I have 5 digits.
My 9 is worth 9 * 10,000.
My 2 is worth 2 thousand.
One of my 7s is worth 70.
The other is worth 10 times as much.
My other digit is a 6.

What number am I?

_____

③ I have 4 digits.
My 7 is worth 7 * 1,000.
My 2 is worth 200.
One of my 4s is worth 40.
The other is worth $\frac{1}{10}$ as much.

What number am I?

_____

④ I have 6 digits.
One of my 3s is worth 300,000.
The other is worth $\frac{1}{10}$ as much.
My 6 is worth 600.
The rest of my digits are zeros.

What number am I?

_____

⑤ I have 5 digits.
My 4s are worth 4 [10,000s] and 4 * 10.
One of my 3s is worth 3,000.
The other is worth $\frac{1}{10}$ as much.
My other digit is a 2.

What number am I?

_____

⑥ I am the largest 7-digit number you can write with the digits 3, 6, 9, 4, 0, 8, and 2.

What number am I?

_____

Practice

Solve.

⑦ 4 * (3 + 2) = _____

⑧ 100 − [(25 / 5) * 10] = _____

⑨ {(24 / 6) + (36 / 6)} + 2 = _____

⑩ (3 * 5) − (2 * 5) = _____

⑪ (3 * 7) + (2 * 5) = _____

⑫ (56 / 7) * (42 / 7) = _____

Evaluating Expressions with Exponential Notation

Home Link 2-2

NAME DATE TIME

SRB 68-69, 71

Write each number in standard notation.

① 10^6 _____ ② $3 * 10^6$ _____

③ 10^3 _____ ④ $24 * 10^3$ _____

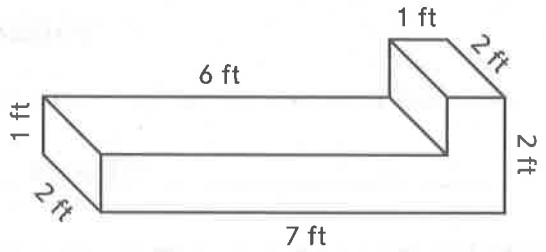
Explain to someone at home how you solved Problems 1–4.

Write each number in standard notation. Then compare them by writing >, <, or = in the box.

Sample	$22 * 10^4$ 220,000	<	$11 * 10^5$ 1,100,000
⑤	$3 * 10^2$		$2 * 10^3$
⑥	$15 * 10^7$		$2 * 10^8$
⑦	$10^8 * 27$		$9 * 10^7$

Practice

Jackie wants to ship a box of hockey sticks to a sports camp. She is using the box shown below.



Shipping Rate

$20.00 for up to 10 cubic feet.

Add $1.00 for each cubic foot above 10.

⑧ What is the volume of the box?

About _____ cubic feet

⑨ How much will Jackie pay for shipping? $_____

Solving Problems Using Powers of 10

Home Link 2-3

NAME DATE TIME

SRB 83, 97-98

Use estimation to solve.

Renee is in charge of the school carnival for 380 students. She has 47 boxes of prizes. Each box has 22 prizes. She wants to make sure she has enough prizes for each student to win 2 prizes.

① Does Renee have enough prizes? _____

Explain how you solved the problem.

② Does Renee have enough prizes for each student to win 3 prizes? _____

Explain.

Practice

Write each number in standard notation.

③ $42 * 10^6$ _____

④ $8 * 10^1$ _____

Write each number in exponential notation.

⑤ 30,000 _____

⑥ 70,000,000 _____

U.S. Traditional Multiplication

Home Link 2-4

NAME DATE TIME

Family Note Today your child began learning a multiplication strategy called U.S. traditional multiplication. This strategy may be familiar to you, as it is the multiplication strategy that many adults learned when they were in school. Your child will be learning to use U.S. traditional multiplication with larger and larger numbers over the next week or two.

U.S. traditional multiplication is often challenging for students to learn. Do not expect your child to use it easily right away. There will be plenty of opportunities for practice throughout the school year.

As your child uses U.S. traditional multiplication to solve the problems below, encourage him or her to check the answers by solving the problems in another way or using an estimate.

Solve each problem using U.S. traditional multiplication. Show your work.

SRB 102

Example:	
$\begin{array}{r} {\scriptstyle 2\ \ } \\ 73 \\ \times\ \ 8 \\ \hline 584 \end{array}$	Multiply the ones: 8 * 3 ones = 24. Write 4 below the line and 2 above the 10s column. Then multiply the tens: 8 * 7 tens = 56 tens. Add the 2 tens from the first step: 56 tens + 2 tens = 58 tens, or 5 hundreds and 8 tens. Write 8 below the line in the 10s column and 5 below the line in the 100s column.

① $\begin{array}{r} 56 \\ \times\ \ 6 \\ \hline \end{array}$

② $\begin{array}{r} 96 \\ \times\ \ 4 \\ \hline \end{array}$

Practice

Write each number in expanded form.

③ 397 _____

④ 1,268 _____

⑤ 4,082 _____

⑥ 29,141 _____

Multiplication Top-It: Larger Numbers

Home Link 2-5

NAME DATE TIME

Make a set of number cards by writing the numbers 0–9 on slips of paper or index cards. Make four of each number card. You can also use the 2–9 cards and the aces from a deck of regular playing cards.

SRB 100, 102, 104

Explain the rules of *Multiplication Top-It: Larger Numbers* to someone at home.

Multiplication Top-It: Larger Numbers

1. Each player draws 4 cards. Use 3 of the cards to make a 3-digit number. Use the other card to make a 1-digit number.
2. Multiply the numbers. Compare your product to the other player's product. The player with the larger product takes all the cards.
3. Keep playing until you run out of cards. The player with more cards wins the game.

To play by yourself: Keep the cards if your product is more than 1,000. Discard the cards if your product is less than 1,000. If you have more than 20 cards at the end of the game, you win.

Use your number cards to play the game with a partner or by yourself. Record two rounds of the game below. Show how you multiplied. Use U.S. traditional multiplication to multiply in at least one round.

(1)

(2)

Practice

Write each power of 10 using exponential notation.

(3) 100 = _____

(4) 10,000 = _____

(5) 100,000,000 = _____

(6) 1,000 = _____

Converting Units

Home Link 2-6

NAME DATE TIME

Ask someone at home to help you find the following:

SRB 215-216

- a 1-cup measuring cup or a coffee mug
- a large bowl
- a stopwatch or clock
- a 12-inch ruler or tape measure
- a food package with a weight given in pounds

1 cup = 8 fluid ounces
1 minute = 60 seconds
1 foot = 12 inches
1 pound = 16 ounces

Use these things to help you answer the questions below.

(1) **a.** Pour cups of water into the large bowl. (A coffee mug holds about 1 cup of water.) How many cups of water does it take to fill the bowl?

_____ cups

b. Convert your measurement to fluid ounces. _____ fluid ounces

(2) **a.** Time or estimate how long it takes you to walk around your block in minutes.

_____ minutes

b. Convert your measurement to seconds. _____ seconds

(3) **a.** Measure the length of your bed to the nearest foot. _____ feet

b. Convert your measurement to inches. _____ inches

(4) **a.** Record the weight on the food package in pounds. _____ pounds

b. Convert the weight to ounces. _____ ounces

Practice

Make an estimate. Then solve using U.S. traditional multiplication. Show your work. Use your estimate to check that your answer makes sense.

(5) 358 * 8 = ?

Estimate: _____

```
  3 5 8
*     8
-------
```

(6) 377 * 4 = ?

Estimate: _____

```
  3 7 7
*     4
-------
```

Estimating and Multiplying

Home Link 2-7

NAME DATE TIME

SRB 83, 100-104

Make an estimate for each multiplication problem. Write a number sentence to show how you estimated.

Then solve ONLY the problems that have answers that are *more than 1,000.* Use your estimates to help you decide which problems to solve.

Use U.S. traditional multiplication to solve at least one of the problems. Show your work.

① $23 * 41 = ?$

$20 * 40 = 800$

(estimate)

$$\begin{array}{r} 23 \\ * \ 41 \\ \hline \end{array}$$

② $72 * 56 = ?$

_____

(estimate)

$$\begin{array}{r} 72 \\ * \ 56 \\ \hline \end{array}$$

③ $32 * 15 = ?$

_____

(estimate)

$$\begin{array}{r} 32 \\ * \ 15 \\ \hline \end{array}$$

④ $82 * 11 = ?$

_____

(estimate)

$$\begin{array}{r} 82 \\ * \ 11 \\ \hline \end{array}$$

⑤ $63 * 39 = ?$

_____

(estimate)

$$\begin{array}{r} 63 \\ * \ 39 \\ \hline \end{array}$$

⑥ $91 * 46 = ?$

_____

(estimate)

$$\begin{array}{r} 91 \\ * \ 46 \\ \hline \end{array}$$

Practice

Solve.

⑦ **a.** $7 * 10{,}000 =$ _____

b. $7 * 10^4 =$ _____

⑧ **a.** $2 * 400 =$ _____

b. $2 * 4 * 10^2 =$ _____

⑨ **a.** $6{,}000 * 300 =$ _____

b. $6 * 10^3 * 3 * 10^2 =$ _____

Choosing Multiplication Strategies

Home Link 2-8

NAME DATE TIME

SRB 83, 100-104

Choose one problem to solve using U.S. traditional multiplication. Solve the other problems using any strategy. Try to choose strategies that are accurate and efficient. Show your work.

① $198 * 25 = ?$ _____ (estimate)

② $642 * 207 = ?$ _____ (estimate)

③ $420 * 41 = ?$ _____ (estimate)

$198 * 25 =$ _____ $642 * 207 =$ _____ $420 * 41 =$ _____

④ The distance from Chicago, Illinois, to Boston, Massachusetts, by plane is 851 miles. A pilot flew from Chicago to Boston 37 times in one year. How many miles was that?

Estimate: _____

Answer: _____ miles

⑤ It takes 246 floor tiles to cover the floor of a classroom. There are 31 same-size classrooms in the school. How many floor tiles does it take to cover all the classroom floors?

Estimate: _____

Answer: _____ floor tiles

⑥ Explain to someone at home which strategy you used to solve each problem and why.

Practice

Solve.

⑦ **a.** $5 * 300{,}000 =$ _____ **b.** $5 * 3 * 10^5 =$ _____

⑧ **a.** $40 * 6{,}000 =$ _____ **b.** $4 * 10 * 6 * 10^3 =$ _____

⑨ **a.** $20{,}000 * 700 =$ _____ **b.** $2 * 10^4 * 7 * 10^2 =$ _____

Using Multiples of 10 to Estimate

Home Link 2-9

NAME DATE TIME

SRB 97-98

① Estimate about how many meters Martin swims in June if he swims about 200 meters per day. There are 30 days in June. Show how you made your estimate.

About _____ meters

② Estimate how many days it would take Martin to swim 60,000 meters. Show how you made your estimate.

About _____ days

Practice

Make an estimate and solve.

③ 107 * 19 = ?

Estimate: _____

```
  1 0 7
×   1 9
-------
```

④ 86 * 975 = ?

Estimate: _____

```
    9 7 5
×     8 6
---------
```

Mental Division Practice

Home Link 2-10

NAME DATE TIME

Use multiplication and division facts to solve the following problems mentally.
Remember: Write an equivalent name for the dividend by breaking it into smaller parts that are easier to divide.

SRB 72, 107

Example: 72 divided by 4

- Write some multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40
- Write an equivalent name by breaking 72 into smaller numbers that are multiples of 4.
  Equivalent name for 72: 40 + 32
- Use the equivalent name to divide mentally.
  Ask yourself: *How many 4s are in 40?* (10) *How many 4s are in 32?* (8)
  Think: *How many total 4s are in 72?* (10 [4s] + 8 [4s] = 18 [4s], so 72 ÷ 4 = 18)

① 57 ÷ 3 → ?

Multiples of 3: _____

_____

Equivalent name for 57:

_____

57 ÷ 3 → _____

② 96 ÷ 8 → ?

Multiples of 8: _____

_____

Equivalent name for 96:

_____

96 ÷ 8 → _____

Practice

Make an estimate and solve.

③ 68 * 23

Estimate: _____

```
  6 8
* 2 3
-----
```

④ 278 * 15

Estimate: _____

```
  2 7 8
*   1 5
-------
```

Division

Home Link 2-11

NAME DATE TIME

Read the example of how to use partial-quotients division with multiples of the divisor.

SRB 84, 108-110

11)237		
− 220	20	Think: *How many 11s are in 237?* You know 20 * 11 is 220, so there are at least 20 [11s]. Write 20 as your first partial quotient and 220 below 237.
17		Subtract. 17 is left to divide.
− 11	1	Think: *How many 11s are in 17?* 1, so 1 is the next partial quotient. Write 11 below 17.
6	21	Subtract. 6 is left to divide. 6 is less than 11, so we are done dividing.
↑	↑	Add the partial quotients. 20 + 1 = 21

Remainder **Quotient** **Answer: 21 R6**

(1) You could have started solving the example problem by taking away 110 from 237. If this was your first step, what would have been the first partial quotient, and why?

_____

In Problems 2 and 3, make an estimate.
Then divide using partial-quotients division.

(2) Estimate: _____

15)485

Answer: _____

(3) Estimate: _____

17)408

Answer: _____

Practice

Multiply using U.S. traditional multiplication. Show your work on the back of this page.

(4) 751 * 3 = ?

Estimate: _____

Answer: _____

(5) 86 * 94 = ?

Estimate: _____

Answer: _____

Division with Multiples

Home Link 2-12

NAME DATE TIME

Here is how to use partial-quotients division with a list of multiples to solve 2,106 / 19.

First, list some multiples of 19:

100 * 19 = 1,900
50 * 19 = 950
20 * 19 = 380
10 * 19 = 190
5 * 19 = 95

Next, use the multiples to help you choose partial quotients.

19)2,106	
−1,900	100
206	
− 190	10
16	110
↑ Remainder	↑ Quotient

Think: *Are there at least 100 [19s] in 2,106?* Yes, 100 * 19 = 1,900. Use 100 as your first partial quotient.

Subtract. 206 is left to divide.

Think: *Are there at least 10 [19s] in 206?* Yes, 10 * 19 = 190. *Are there at least 20 [19s] in 206?* No, 20 * 19 = 380. So use 10 as the next partial quotient.

Subtract. 16 is left. 16 is less than 19, so you are done dividing. Add the partial quotients: 100 + 10 = 110

Answer: 110 R16

Complete the list of multiples below. Then use it to help you solve 1,954 / 18.

① 100 * _____ = _____

50 * _____ = _____

20 * _____ = _____

10 * _____ = _____

5 * _____ = _____

2 * _____ = _____

② 1,954/18 → ?

Estimate: _____

18)1,954

Answer: _____

Practice

Divide using partial-quotients division. Show your work on the back of this page.

③ 931 / 12 → ?

Estimate: _____

Answer: _____

④ 716 / 21 → ?

Estimate: _____

Answer: _____

Division Number Stories with Remainders

Home Link 2-13

NAME DATE TIME

Create a mathematical model for each problem. Solve the problem and show your work. Explain what you did with the remainder.

SRB 12-14, 113

① Pizzas cost $14 dollars each. How many pizzas can you buy with $60? Quotient: _____ Remainder: _____ Answer: I can buy _____ pizzas. Circle what you did with the remainder. Ignored it Rounded the quotient up Why? _____ _____	Mathematical model:
② Your classroom received 150 books. You are placing them in bins. Each bin holds 20 books. How many bins do you need? Quotient: _____ Remainder: _____ Answer: I need _____ bins. Circle what you did with the remainder. Ignored it Rounded the quotient up Why? _____ _____	Mathematical model:

Practice

Divide using partial quotients. Then make an estimate to check whether your answer makes sense. Show your work on the back of this page.

③ 190 ÷ 15 → _____

Estimate: _____

④ 427 ÷ 30 → _____

Estimate: _____