Place Value in Whole Numbers

Home Link 1-1

NAME DATE TIME

Family Note In this lesson your child explored the relationships between place values in numbers. Have your child read each number below. Examine the digit 6 in each number.

Hundred-Thousands	Ten-Thousands	Thousands	Hundreds	Tens	Ones
600,000	60,000	6,000	600	60	6

When the digit 6 moves left one place, its value becomes 10 times as large as it was in the previous place. For example, 60 is 10 times as large as 6, and 600 is 10 times as large as 60.

SRB 78-79

① **a.** The 8 in 203,810 is worth _____. **b.** The 6 in 56,143 is worth _____.

c. The 7 in 573,090 is worth _____. **d.** The 1 in 140,007 is worth _____.

② How does the value of the digit 4 in 489 differ from the value of the digit 4 in 5,741?

_____

_____

③ **a.** The value of 8 in 56,982 is _____ times as large as the value of 8 in 156,408.

b. The value of 8 in 800 is _____ times as large as the value of 8 in 80.

c. The value of 9 in 4,934 is _____ times as large as the value of 9 in 1,290.

④ **a.** Write the number that has . . .

7 in the thousands place
6 in the ten-thousands place
5 in the hundreds place
8 in the ones place
3 in the tens place

_____ _____, _____ _____ _____

b. On the back of this page, write this number in words.

Practice

⑤ 9 + 8 = _____ ⑥ 7 + 8 = _____ ⑦ 30 + 80 = _____

⑧ _____ = 50 + 40 ⑨ _____ = 17 + 94 ⑩ 158 + 93 = _____

Country Sizes

Home Link 1-2

NAME DATE TIME

This table shows the sizes of 10 countries measured in square miles.

SRB 81

Use a place-value tool to help you answer the questions.

Country	Area (in square miles)
Algeria	919,600
Colombia	439,700
Ethiopia	426,400
Egypt	386,700
Greece	50,900
Iran	636,400
Laos	91,400
Peru	494,200
Uganda	93,100

Source: worldatlas.com (All data rounded to nearest hundred.)

(1) Read the numbers to someone at home.

(2) Which is the largest country listed?

_____

The smallest? _____

(3) Compare the areas of Laos and Uganda.

a. Which country has the larger area? _____ How do you know?

_____

_____

b. Write a comparison number sentence. _____

(4) Order the countries from largest area to smallest area.

Country	Area (in square miles)

Practice

(5) 140 − 60 = _____ (6) _____ = 57 − 39 (7) 115 − 86 = _____

Rounding

Home Link 1-3

NAME DATE TIME

SRB 85-87

① Round the seating capacities in the table below to the nearest thousand.

Women's National Basketball Association (WNBA) Seating Capacity of Home Courts		
Team	**Seating Capacity**	**Rounded to the Nearest 1,000**
Chicago Sky	17,500	
Connecticut Sun	9,518	
Indiana Fever	18,165	
Los Angeles Sparks	13,141	
Minnesota Lynx	19,356	
Phoenix Mercury	18,422	
Seattle Storm	17,072	
Tulsa Shock	17,839	
Washington Mystics	20,308	

Source: www.wnba.com

② Look at your rounded numbers. Which teams' arenas have about the same capacity?

_____

③ Round the population figures in the table below to the nearest hundred-thousand.

U.S. States with the Five Smallest Populations (2010 Census)		
State	**Population**	**Rounded to the Nearest 100,000**
Wyoming	563,626	
Vermont	626,011	
North Dakota	699,628	
Alaska	731,449	
South Dakota	833,354	

Practice

④ _____ = 60 + 60 ⑤ _____ = 54 + 59 ⑥ 185 + 366 = _____

Professional Sports Attendance

Home Link 1-4

NAME DATE TIME

The table below shows the attendance for various 2013–2014 professional sports teams. Use the table and a place-value tool to answer the questions.

SRB 81, 85-87

	Chicago*	New York*†	Philadelphia	Boston	Washington
Hockey	927,545	738,246	813,411	720,165	740,240
Baseball	2,882,756	3,542,406	3,565,718	3,043,003	2,370,794

Source: ESPN NHL Attendance report 2013–2014 and ESPN MLB Attendance report 2012
*Baseball attendance is for the Chicago Cubs and the New York Yankees.
†Hockey attendance is for the New York Rangers.

(1) Which sport had the greater attendance? _____

(2) Round the attendance at the hockey games.

	Nearest 100,000	Nearest 10,000
Chicago		
New York		
Philadelphia		
Boston		
Washington		

(3) Round the attendance for each baseball team to the nearest million.

Chicago: _____ New York: _____

Philadelphia: _____ Boston: _____

Washington: _____

(4) List the cities in order from greatest to least hockey attendance.

_____

(5) Write a number sentence comparing the greatest and least baseball attendances. Use <, >, or =.

_____

Practice

(6) 210 − 150 = _____ (7) 140 − 80 = _____ (8) 93 − 58 = _____

Using Estimation Strategies

Home Link 1-5

NAME DATE TIME

Family Note Today students explored different ways of estimating: **rounding** (in which all numbers are rounded to a particular place value), **front-end estimation** (all digits to the right of the greatest place value become zeros), and using **close-but-easier numbers** (numbers are rounded to a number that is close in value and easy to work with). While all methods of estimation are equally valid, some may be more helpful than others for answering specific kinds of questions.

Read the number stories. Choose an appropriate estimation strategy.

SRB 82-89

(1) On the walk home from school, Meg stopped at the library for 22 minutes and at her grandmother's house for 38 minutes. She spent 17 minutes walking. She left at 3:00 and was supposed to be home by 4:00.

a. Did Meg make it home on time? _____ How did you get your answer?

_____

_____

b. Why did you choose your estimation strategy? _____

_____

_____

(2) You and two friends need to make 100 tacos for a party. You have made 31 tacos. Your friend Chris has made 24 tacos. Your friend Pat thinks he needs to make at least 60 tacos to have enough for the party.

a. Is Pat correct? _____ How did you get your answer?

_____

_____

b. Why did you choose your estimation strategy? _____

_____

_____

Practice

(3) 31 + 51 = _____ (4) 45 + 64 = _____ (5) 252 + 144 = _____

Animal Number Stories

Home Link 1-6

NAME DATE TIME

SRB 82-84

Estimate. Then solve each number story.

(1) The zoo needs to move four animals in a truck that can carry only 700 pounds. A leopard can weigh up to 176 pounds. A warthog can weigh up to 250 pounds. A chimpanzee can weigh as much as 130 pounds. What is the maximum weight that the fourth animal can be?

Estimate: About _____ pounds

Answer: _____ pounds

Number model with answer: _____

Does your answer make sense? _____ How do you know?

_____

_____

(2) The combined weight of a mountain lion, an orangutan, and a wolf can be as much as 491 pounds. If the wolf weighs 175 pounds and the orangutan weighs 180 pounds, how much do ***two*** mountain lions weigh?

Estimate: About _____ pounds

Answer: _____ pounds

Number model with answer: _____

Does your answer make sense? _____ How do you know?

_____

_____

Source: maximum animal weights from www.nationalgeographic.com

Practice

(3) 5 + 8 = _____ (4) 9 + 6 = _____ (5) 70 + 50 = _____

(6) _____ = 80 + 50 (7) 67 + 94 = _____ (8) _____ = 425 + 275

U.S. Traditional Addition

Home Link 1-7

NAME DATE TIME

SRB 92-93

Family Note In today's lesson students were introduced to U.S. traditional addition. The steps are listed below.

Step 1

Add the 1s: 9 + 7 = 16.

16 ones = 1 ten and 6 ones

Write 6 in the 1s place below the line.

Write 1 above the digits in the 10s place.

$$\begin{array}{r} {\scriptstyle 1} \\ 79 \\ +47 \\ \hline 6 \end{array}$$

Step 2

Add the 10s: 7 + 4 + 1 = 12.

12 tens = 1 hundred + 2 tens

Write 2 in the 10s place below the line.

Write 1 in the 100s place below the line.

$$\begin{array}{r} {\scriptstyle 1} \\ 79 \\ +47 \\ \hline 126 \end{array}$$

Make an estimate. Write a number model to show what you did. Then solve using U.S. traditional addition. Compare your answer with your estimate to see if your answer makes sense.

① $\begin{array}{r} 36 \\ +46 \\ \hline \end{array}$ Estimate: _____	② $\begin{array}{r} 47 \\ +95 \\ \hline \end{array}$ Estimate: _____	③ 784 + 889 = Estimate: _____
④ $\begin{array}{r} 689 \\ +839 \\ \hline \end{array}$ Estimate: _____	⑤ 279 + 1,795 = Estimate: _____	⑥ 3,746 + 6,255 = Estimate: _____

Practice

⑦ Round 2,787 to the nearest . . .

hundred _____ thousand _____

⑧ Round 54,681 to the nearest . . .

thousand _____ ten-thousand _____

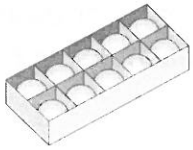
Grouping by Multiples of 10

Home Link 1-8

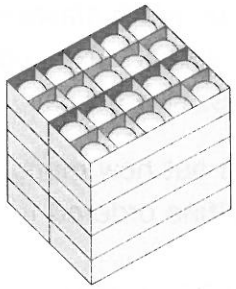
NAME DATE TIME

Alfie is ordering table tennis balls for the recreation center. A box holds 10 balls. A carton of table tennis balls holds 10 boxes.

SRB 102



Box of table tennis balls



Carton of table tennis balls

(1) How many table tennis balls are in one carton? _____

(2) Alfie ordered 7 cartons and 3 boxes of table tennis balls. How many balls did he order? _____

Show how you know your answer is correct.

(3) Explain how the cartons and boxes for table tennis balls are like the digits for numbers in our base-10 number system.

Practice

(4) 440 + 294 = _____

(5) 166 + 707 = _____

(6) _____ = 425 + 886

(7) 1,474 + 529 = _____

U.S. Traditional Subtraction

Home Link 1-9

NAME DATE TIME

Family Note In today's lesson students were introduced to U.S. traditional subtraction. The process is shown below for the problem 653 – 387.

SRB 82-84, 100-101

Step 1:

Start with the ones. Trade 1 ten for 10 ones. Subtract the ones.

	100s	10s	1s
		4	13
	6	~~5~~	~~3~~
–	3	8	7
			6

Step 2:

Go to the tens. Trade 1 hundred for 10 tens. Subtract the tens.

	100s	10s	1s
		14	
	5	~~4~~	13
	~~6~~	~~5~~	~~3~~
–	3	8	7
		6	6

Step 3:

Go to the hundreds. We don't need to regroup, so just subtract.

	100s	10s	1s
		14	
	5	~~4~~	13
	~~6~~	~~5~~	~~3~~
–	3	8	7
	2	6	6

Make an estimate. Write a number model to show what you did. Then solve using U.S. traditional subtraction. Compare your answer with your estimate to see whether your answer makes sense.

① 85 − 38 Estimate: _____	② 613 − 249 Estimate: _____	③ 506 − 187 = _____ Estimate: _____
④ 951 − 695 = _____ Estimate: _____	⑤ 1,544 − 749 Estimate: _____	⑥ 7,003 − 4,885 = _____ Estimate: _____

Practice

⑦ 740 + 294 = _____

⑧ 2,566 + 807 = _____

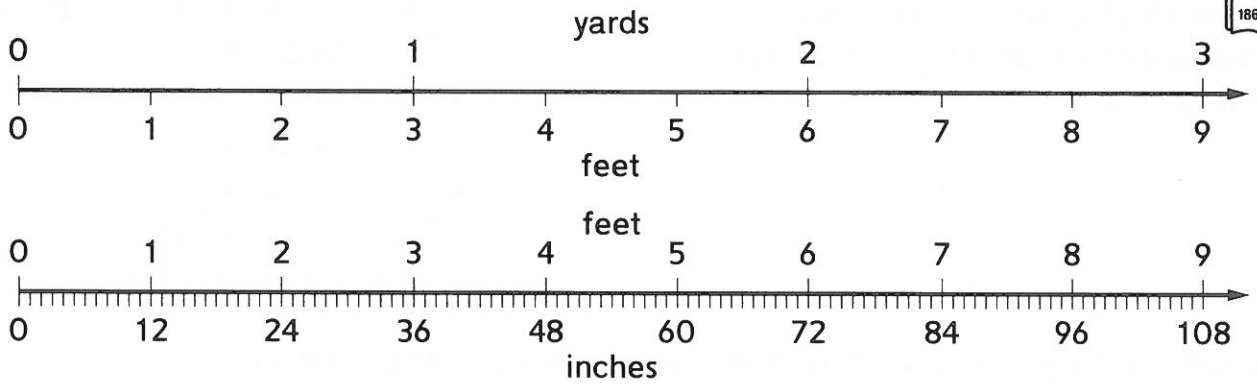
Snake Lengths

Home Link 1-10

NAME DATE TIME

Use the measurement scales to solve the problems.

SRB 186-187



(1)

Feet	Inches
1	
6	
8	
12	

(2)

Yards	Feet
1	
3	
8	
16	

(3) The king cobra can measure a little over 4 yards in length. The black mamba can reach a length of almost 5 yards. What is the combined length of the two snakes in feet?

Answer: _____ feet

(4) The Burmese python can be anywhere from 16 to 23 feet long. What is the difference in length in inches between the longest and shortest Burmese python?

Answer: _____ inches

Practice

(5) Write 4,857 in words.

_____

(6) Write 14,066 in words.

_____

Line Segments, Lines, and Rays

Home Link 1-11

NAME DATE TIME

SRB 226-227, 230-231

① List at least 5 things in your home that remind you of line segments.

Use a straightedge to complete Problems 2 and 3.

② **a.** Draw and label line *EF*.

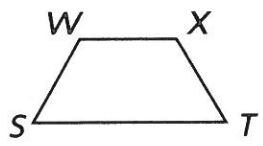
b. Draw and label line segment *EF*.

c. Explain how your drawings of line *EF* and line segment *EF* are different.

③ **a.** Draw and label ray *SR*.

b. Anita says ray *SR* can also be called ray *RS*. Do you agree? Explain.

④



Name the parallel line segments.

Practice

⑤
$$\begin{array}{r} 964 \\ -\ 348 \\ \hline \end{array}$$

⑥
$$\begin{array}{r} 662 \\ -\ 497 \\ \hline \end{array}$$

⑦
$$\begin{array}{r} 2,423 \\ -\ 1,491 \\ \hline \end{array}$$

Angles and Quadrilaterals

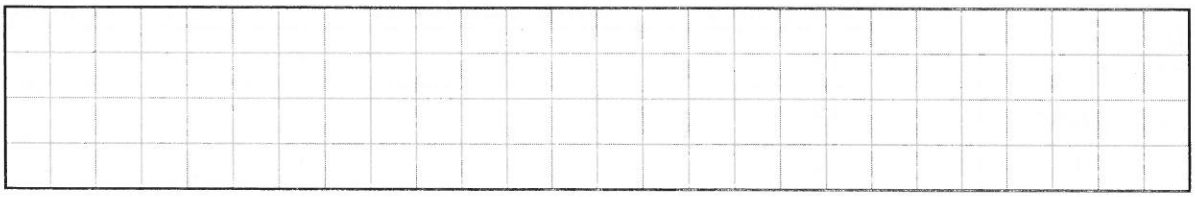
Home Link 1-12

NAME DATE TIME

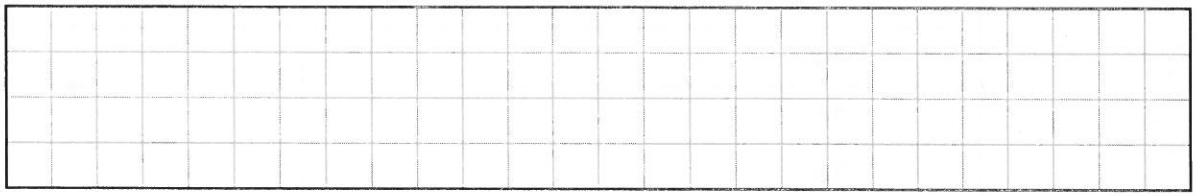
SRB 228-229, 233

Use a straightedge to draw the geometric figures.

(1) Draw 2 examples of a rectangle.



(2) Draw 2 examples of a right triangle.



(3) How are the shapes in Problems 1 and 2 similar? How are they different?

_____

_____

_____

(4) **a.** Draw right angle *DEF*.

(5) Draw an angle that is larger than a right angle. Label the vertex *K*.

b. What is the vertex of the angle? Point _____

c. What is another name for ∠***DEF***? _____

Practice

Use U.S. traditional subtraction.

(6) _____ = 756 − 348

(7) 700 − 450 = _____

(8) 7,942 − 3,887 = _____

Finding the Perimeter

Home Link 1-13

NAME DATE TIME

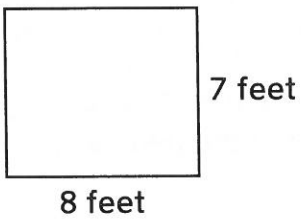
Family Note In class, students developed some rules, or *formulas*, for finding the perimeter of a rectangle. Here are three possible formulas:

- Add the measures of the four sides: perimeter of a rectangle = length + length + width + width. This formula can be abbreviated as: $p = l + l + w + w$.
- Add the two given sides and double the sum: perimeter of a rectangle = 2 * (length + width). This formula can be abbreviated as: $p = 2 * (l + w)$.
- Double the length, double the width, and then add: perimeter of a rectangle = (2 * length) + (2 * width). This formula can be abbreviated as: $p = 2l + 2w$.

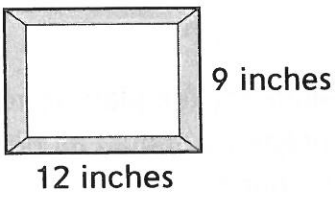
In all of the formulas, the letter p stands for the *perimeter of a rectangle*, the letter l stands for the *length of the rectangle*, and the letter w stands for the *width of the rectangle*.

SRB 200

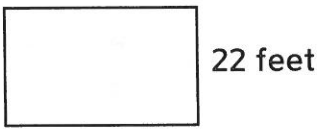
Find the perimeters of the rectangles below.

① 

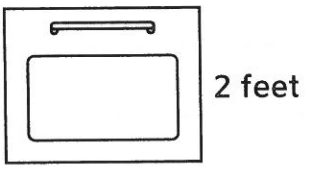
Perimeter: _____ feet

② 

Perimeter: _____ inches

③ 

Perimeter: _____ feet

④ 

Perimeter: _____ inches

⑤ The perimeter of a garden is 42 feet. The length is 15 feet. What is the width?

Width: _____ feet

Practice

Round each number to the nearest ten-thousand and hundred-thousand.

⑥ 421,492 _____ _____

⑦ 895,531 _____ _____

Unit 2: Family Letter

Home Link 1-14

NAME DATE TIME

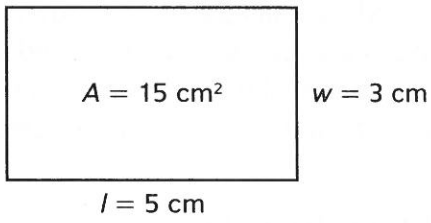
Multiplication and Multiplicative Comparison

In Unit 2 students build on prior work multiplying whole numbers. The focus is on multiplication in a variety of contexts, including rectangular-array patterns and work with factors, factor pairs, multiples, prime numbers, and composite numbers.

This unit introduces the concept of multiplicative comparison, or using multiplication to compare one quantity to another. Take the following number story: *Mike earned $4. Sue earned 7 times as much as Mike.* Here Sue's earnings are compared to Mike's as being 7 times as much. Based on this comparison, we can find how much Sue earned ($4 * 7 = $28).

Measurement work in Unit 2 is tied to multiplication. Working with units of time, students multiply to convert from hours to minutes and minutes to seconds. They are introduced to the area formula for rectangles, $A = l * w$, in which A is area, l is length, and w is width.

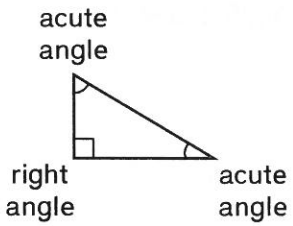
Applying the formula for the area of a rectangle:



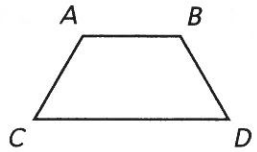
Students also work with patterns found in square numbers, multiples, factors, and "What's My Rule?" tables. They practice looking more deeply into patterns by identifying ones that are apparent but are not stated in the rule. For example, students may notice in the pattern based on the rule *multiply a number by itself* that every other square number is even.

Classifying Geometric Figures; Symmetry

Students build on their study of geometry in Unit 1 by identifying properties of shapes. They explore the properties of angles and triangles by identifying right, obtuse, and acute angles in triangles. Students begin work with classification, an important geometry skill, by sorting quadrilaterals according to the number of pairs of parallel sides.



Identifying properties of right triangles



The trapezoid has one pair of parallel sides: $\overline{AB}$ and $\overline{CD}$.

Symmetry is another focus in Unit 2. Symmetry is found in natural objects like flowers, insects, and the human body, as well as in buildings, furniture, clothing, and paintings.

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