Multiplication Puzzles

Home Link 4-1

NAME DATE TIME

Solve the multiplication puzzles mentally. Fill in the blank boxes.

SRB 102

Examples:

*	300	2,000
2	600	4,000
3	900	6,000

*	80	50
4	320	200
8	640	400

①

*	70	400
8		
9		

②

*	5	7
80		
600		

③

*	9	4
50		
7,000		

④

*		600
7	3,500	
		2,400

⑤

*		8
30	270	
		5,600

⑥

*	400	
	3,600	
20		10,000

Make up and solve some puzzles of your own.

⑦

*		

⑧

*		

Practice

Solve using U.S. traditional addition or subtraction.

⑨ 321 + 869 = _____

⑩ 5,401 − 752 = _____

⑪ 4,568 + 8,735 = _____

⑫ 9,156 − 4,584 = _____

Finding Estimates and Evaluating Answers

Home Link 4-2

NAME DATE TIME

Write an estimate and show your thinking. Solve using a calculator. Check to see that your answer is reasonable.

SRB 82-89

(1) Alice sleeps an average of 9 hours per night. A cat can sleep up to 20 hours per day. About how many more hours does a cat sleep in 1 month than Alice?

Estimate: _____

Answer: About _____ more hours per month

Is your answer reasonable? _____ How do you know? _____

_____

(2) Koalas sleep about 22 hours a day. Pandas sleep about 10 hours a day. About how many more hours does a typical koala sleep in 1 year than a typical panda?

Estimate: _____

Answer: About _____ more hours per year

Is your answer reasonable? _____ How do you know? _____

_____

(3) There are 30 Major League Baseball (MLB) teams and 32 National Football League (NFL) teams. The expanded roster for MLB teams is 40 players and it is 53 for NFL teams. How many more players are in the NFL than in the MLB?

Estimate: _____

Answer: _____ more players

Is your answer reasonable? _____ How do you know? _____

_____

Practice

Round to the nearest thousand.

(4) 45,493 _____

Round to the nearest ten-thousand.

(5) 1,409,836 _____

Partitioning Rectangles

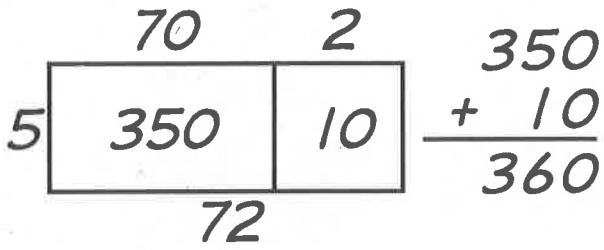
Home Link 4-3

NAME DATE TIME

Solve the multiplication problems by partitioning a rectangle. Then add each part of the rectangle to get the product.

SRB 103-104

Example: 5 * 72 = 360



① 4 * 35 = _____

② 6 * 83 = _____

③ 9 * 49 = _____

Practice

Solve using U.S. traditional addition or subtraction.

④ 9,289 + 1,476 = _____

⑤ 6,503 − 3,547 = _____

⑥ 5,619 + 5,999 = _____

⑦ 5,005 − 2,446 = _____

Converting Liquid Measures

Home Link 4-4

NAME DATE TIME

SRB 193-194

Complete the table.

①

Liters (L)	Milliliters (mL)
8	
15	
20	
25	

② Mrs. Wong's students kept track of how much water they used to water the classroom plants. The first week they used 24 liters, and the second week they used 17 liters. How many more milliliters did they use the first week than the second?

Answer: _____ mL

③ My fish tank holds 64 liters of water. My neighbor's tank holds 58 liters of water. How many milliliters is that combined?

Answer: _____ mL

④ Mrs. Reyes filled her kiddie pool with 83 liters of water. Her children added 2,000 mL of water to the pool. How many liters of water are in the pool now?

Answer: _____ L

Practice

Solve using U.S. traditional addition or subtraction.

⑤ 4,638 + 9,807 = _____

⑥ 7,322 − 3,741 = _____

⑦ 55,812 + 6,529 = _____

⑧ 98,001 − 7,443 = _____

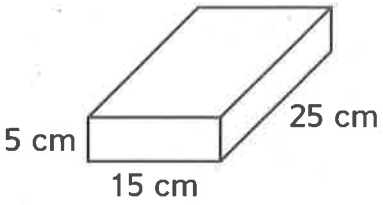
Using Multiplication

Home Link 4-5

NAME DATE TIME

SRB 103-105

Ms. Patel wants to keep her classroom calculators in a box that is 25 centimeters long, 15 centimeters wide, and 5 centimeters tall. The calculators measure 12 centimeters long, 7 centimeters wide, and 1 centimeter tall. How many calculators can Ms. Patel fit in the box?



(1) Solve this problem. Show or explain how you solved the problem.

(2) Show or explain how you know your answer makes sense.

Practice

Sketch a rectangle or use partial products to solve.

(3) $27 * 4 =$ _____

(4) $48 * 9 =$ _____

(5) $43 * 3 =$ _____

(6) $81 * 5 =$ _____

Multiplying in Parts

Home Link 4-6

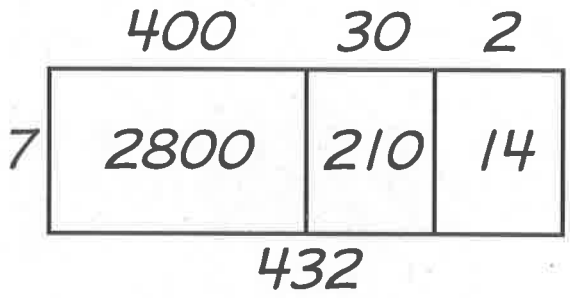
NAME DATE TIME

In the example, a rectangle was drawn to represent the problem. Then partial-products multiplication was used to record the work in a simpler way. Use partial-products multiplication to solve Problems 1 and 2.

SRB 103-104, 106

Example:

Partitioned Rectangle



Partial-Products Multiplication

$$\begin{array}{r} 432 \\ \times \quad 7 \\ \hline 2800 \\ 210 \\ +\quad 14 \\ \hline 3{,}024 \end{array}$$

① $\begin{array}{r} 48 \\ \times \quad 3 \\ \hline \end{array}$

② $\begin{array}{r} 653 \\ \times \quad 8 \\ \hline \end{array}$

Practice

Write the numbers in expanded form.

③ 905,603 _____

④ 589,043 _____

⑤ 2,599,002 _____

⑥ 8,003,952 _____