Solving Subtraction Problems

Family Note Today your child learned trade-first subtraction, a method for solving subtraction problems that involves making all of the necessary trades before subtracting. Trade-first subtraction builds on children's understanding of place value and helps them solve subtraction problems more efficiently. The example below shows the trade-first method.

Please return this Home Link to school tomorrow.

Fill in the unit box. Then solve each problem. Choose a strategy that works best for you. You may use your estimates to check your work.

Unit

Example:

Estimate: $510 - 250 = 260$

$$
\begin{array}{r}
\overset{\;\;\;\;10}{\overset{4\;\;\not{11}\;\;13}{\not{5}\;\not{1}\;\not{3}}} \\
-\;2\;\;4\;\;7 \\
\hline
2\;6\;6
\end{array}
$$

① Estimate: _____

$$
\begin{array}{r}
3\;7\;5 \\
-\;2\;9\;6 \\
\hline
\end{array}
$$

② Estimate: _____

$$
\begin{array}{r}
1\;1\;5 \\
-\;\;\;8\;7 \\
\hline
\end{array}
$$

③ Estimate: _____

$$
\begin{array}{r}
5\;0\;3 \\
-\;3\;6\;8 \\
\hline
\end{array}
$$

Check: Do your answers make sense? How do you know?

_____

_____

Multiplication Hidden Message

Family Note Today your child worked toward automaticity with multiplication facts by learning to play *Baseball Multiplication.* Fact games and ×/÷ Fact Triangles provide opportunities for multiplication facts practice at home. Continue to work with your child on multiplication facts practice for brief periods of time (no more than 5 to 10 minutes) on a daily basis.

Please return this Home Link to school tomorrow.

Find the hidden message. Solve the facts below. You do not have to write the products. Use the key to decide whether to shade the shapes.

	Key		
0–20	Do not shade	41–60	Do not shade
21–40	Shade	61–100	Shade

Multiplication Facts Strategies

For each fact below:
- Choose one of the strategies from the box.
- Solve the fact using that strategy.
- Explain how you solved the fact.

doubling	subtracting a group	adding a group
near squares		breaking apart

① 9×6

Strategy: _____

How I solved:

② 8×9

Strategy: _____

How I solved:

③ 6×8

Strategy: _____

How I solved:

④ 4×7

Strategy: _____

How I solved:

⑤ Explain the strategy you used to solve Problem 2 to someone at home.

×, ÷ Fact Triangles: Remaining Facts

4

24 •

• 32

8

×, ÷

×, ÷

28

×, ÷

6

4

7

4

8

7

9

÷, ×

6

×, ÷

×, ÷

8

48 •

• 56

42 •

7

195

Fact Power

Family Note Today your child learned about "fact power," or the ability to solve multiplication facts quickly and easily. Children practiced developing fact power by playing a multiplication game called *Beat the Calculator.* You can help your child develop fact power by playing multiplication fact games and practicing with Fact Triangles at home.

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(1) Choose a way to practice multiplication facts from the list of activities below:

Beat the Calculator   Fact Triangle practice   *Salute!*

(2) Use the activity you chose to practice your multiplication facts with someone at home.

(3) In the boxes below, record six facts for which you have "fact power."

(4) Record one fact that you are still practicing or that you think might be challenging for someone else. Show how you can figure it out efficiently. Explain your strategy to someone at home.

Solving Geometry Problems

Family Note Today your child used straws and twist ties to create different quadrilaterals, or shapes with four sides. Help your child draw quadrilaterals that match each of the descriptions below.

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Draw one or more shapes to match each description.

(1) A parallelogram that is not a square:

(2) A quadrilateral that is not a rhombus:

(3) A quadrilateral that is not a square, a parallelogram, or a rhombus:

Practice

Fill in the unit box. Then solve.

Unit

(4)
```
    3 4 2
  − 1 5 8
  _____
```

(5)
```
    8 4 5
  − 7 5 5
  _____
```

(6) _____ = 231 − 97

199

Multiplication/ Division Diagrams

Family Note Today your child learned to organize number story information in a multiplication/ division diagram. A properly filled out diagram can help children write an equation with a letter representing the unknown quantity. Help your child choose a letter that has something to do with the unknown quantity in the story. For example, in Problem 1, because children need to find the number of balls, *B* can represent the unknown quantity.

Please return this Home Link to school tomorrow.

- Complete the diagram. Use a letter to represent the unknown amount. **SRB** 63-64
- Write a number model.
- Solve the number story. You may draw a picture to help.
- Write your answer with a unit. Does your answer make sense?

(1) You have 42 tennis balls to share among 6 tennis courts. How many tennis balls will you place on each court?

Letter and what it represents: _____

tennis courts	balls per court	balls in all

_____
(number model with letter)

Answer: _____
(unit)

(2) Explain to someone at home how you know your answer makes sense.

Multiplication Top-It

Family Note Today your child learned a new game for practicing multiplication facts, *Multiplication Top-It*. Follow the directions below, and play at least one round of *Multiplication Top-It* with your child. You can make a deck of number cards by labeling index cards or slips of paper 1–10, or you may alter a regular deck of playing cards by removing the face cards and making each ace a 1.

Please return this Home Link to school tomorrow.

Directions for *Multiplication Top-It*

① Shuffle the cards. Place the deck number-side down on the table.

② Each player turns over 2 cards and calls out the product of the numbers.

③ The player with the larger product wins the round and takes all the cards.

④ In case of a tie for the largest product, each tied player turns over 2 more cards and calls out the product of the numbers. The player with the largest product then takes all the cards from both plays.

⑤ The game ends when there are not enough cards left for each player to have another turn.

⑥ The player with the most cards wins.

Record two of your rounds. Explain how a multiplication fact strategy could help someone who didn't know the fact.

My cards: _____ and _____ Strategy that could be used: Fact: ___ × ___ = ___	My cards: _____ and _____ Strategy that could be used: Fact: ___ × ___ = ___

Parentheses Puzzles

Family Note Today your child learned that parentheses are grouping symbols. Parentheses are used in number sentences to indicate which calculations to perform first.

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Show someone at home how to complete the number sentences below. Remember that the parentheses are used to show what you do first.

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① $(17 - 10) + 3 =$ _____ $17 - (10 + 3) =$ _____

② _____ $= (24 - 17) - 6$ _____ $= 24 - (17 - 6)$

③ $5 \times (8 - 2) =$ _____ $(5 \times 8) - 2 =$ _____

Make up another parentheses puzzle and write it below.

④ _____   _____

Try This

⑤ There are 8 fish tanks at the pet store. Each tank has 4 fish. Dalia buys 2 fish. How many fish are left at the store?

You may draw a picture to help.

⑥ Walter wrote this number model to fit the number story in Problem 5:
$8 \times (4 - 2) = 16$

Explain Walter's mistake. _____

_____

Number Stories and Number Sentences

Family Note Today your child worked on writing a number story to fit a number sentence that includes parentheses. In Problem 1, the parentheses indicate that the 7 + 4 must be done first before subtracting 11 from 15. Ask your child to match each number and operation in the number sentence to a part of the number story. For Problem 2, ask your child to explain how his or her number story fits the number sentence. For both problems ask your child, "What do the parentheses mean?"

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(1) Shawn bought 15 pears at the farmers' market to share with his friends. He gave 7 pears away on Monday and 4 on Tuesday. How many pears does Shawn have left to share?

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69-70

Use this number model to solve the problem.

$15 - (7 + 4) =$ _____ pears

Explain how the number model fits the number story.

(2) Write a number story to fit this number sentence.

$20 - (3 \times 6) = 2$

_____

_____

_____

_____

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Order of Operations

> **Family Note** Today your child learned how to solve problems using the order of operations, a list of rules mathematicians follow when solving multistep problems.
>
> *Please return this Home Link to school tomorrow.*

Use the order of operations to solve each number sentence below. Underline the part of each number sentence that should be completed first and then solve. Show your work.

Rules for the Order of Operations

1. Do operations inside parentheses first. Follow rules 2 and 3 when computing inside parentheses.

2. Then multiply or divide, in order, from left to right.

3. Finally add or subtract, in order, from left to right.

---

① $8 \div (7 - 3) =$ _____

② _____ $= 2 \times 10 + 6$

③ $10 + (6 \times 2) =$ _____

④ $15 - 3 \times 2 =$ _____

---

⑤ Tell someone at home why it is important to have rules for the order of operations.

Solving a Number Story

Family Note Today your child used diagrams to organize information in number stories. These diagrams can be used to help write single-number models for multistep problems.

Please send clean, empty containers to school for an upcoming lesson.

Please return this Home Link to school tomorrow.

Write a number model. Use a letter for the unknown.
You may draw a diagram to help.

SRB
76-78

Total	
Part	Part

Start	Change →	End
	_____	

Quantity
Quantity

_____
Difference
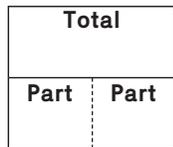
_____	per _____	_____ in all

Solve the story and check to make sure that your answer makes sense. Then write the number model with the answer.

① Andrea made 4 pans of muffins. Each pan holds 6 muffins. She made 18 pumpkin muffins. The rest were banana muffins. How many banana muffins did Andrea make?
Letter and what it represents: _____ for _____

_____
(number model with letter)

Answer: _____ banana muffins

_____
(number model with answer)

Practice

Solve.

② $10 \times 5 =$ _____

③ $11 \times 5 =$ _____

④ _____ $= 10 \times 8$

⑤ _____ $= 11 \times 8$

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