

TEACHER'S EDITION Level D

MCP Mathematics



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1-1 Addition Facts and Subtraction Facts

pages 1-2

1 Getting Started

Objective

- To review basic addition and subtraction facts

Vocabulary

minuend, subtrahend, difference, addend, sum, number sentences

Materials

- *carpet squares or masking tape;
- *floor number line 0 through 20

Warm Up • Mental Math

Dictate the following problems:

- $10,000 + 400$ (10,400)
- $60 - 8$ (52)
- $100 + 40 - 60$ (80)
- 7 times 8 plus 3 (59)
- $10 + 2$ (12)
- $6 + (8 \times 2)$ (22)
- 3 dozen $- 2$ dozen (12)

Warm Up • Numeration

Write the number names for 0 through 18 in mixed order on the board. Have students write the number names and their corresponding numbers in order on a sheet of paper.

2 Teach

Introduce the Lesson Have a student read the problem aloud. Ask students to tell what they need to find. (How many more books Rinaldo needs to read?) Ask students to tell what they already know. (Rinaldo wants to read 12 books and has read 5 so far.) Have students read the sentences aloud as they solve the problem.

- Remind students that they can check their subtraction by adding. Ask a volunteer to read the next section and have the class fill in the information. Finally, read the last sentence and ask students to give additional examples of number sentences.

Develop Skills and Concepts Write $8 - 4 = \underline{\quad}$ on the board. Have a student stand on 8 on the number line and then walk 4 spaces back, toward the smaller numbers.

* Indicates teacher demonstration materials.

Addition and Subtraction

Lesson 1-1

Addition Facts and Subtraction Facts

Rinaldo's goal for this year is to read 12 books. So far, he has read 5 books. How many books must Rinaldo read to reach his goal?

We want to know the number of books Rinaldo must still read to reach his goal.

Rinaldo's goal is to read 12 books.

He has read 5 books so far this year.

To find the number of books he needs to read, we subtract 5 from 12.

$$\begin{array}{r} 12 \\ - 5 \\ \hline 7 \end{array} \quad \begin{array}{l} 12 \leftarrow \text{minuend} \\ - 5 \leftarrow \text{subtrahend} \\ \hline 7 \leftarrow \text{difference} \end{array}$$

Rinaldo needs to read 7 more books this year.

To check the subtraction, add 7 and 5.

$$\begin{array}{r} 7 \\ + 5 \\ \hline 12 \end{array} \quad \begin{array}{l} 7 \leftarrow \text{addend} \\ + 5 \leftarrow \text{addend} \\ \hline 12 \leftarrow \text{sum} \end{array}$$

The subtraction is correct because $7 + 5 = 12$.

$7 + 5 = 12$ and $12 - 5 = 7$ are called **number sentences**.

Getting Started

Complete each number sentence. Check your answer.

- $4 + 2 = \underline{6}$
- $7 + 9 = \underline{16}$
- $8 + 8 = \underline{16}$
- $10 - 8 = \underline{2}$
- $11 - 3 = \underline{8}$
- $13 - 4 = \underline{9}$
- $7 + 6 = \underline{13}$
- $9 - 5 = \underline{4}$

Lesson 1-1 • Addition Facts and Subtraction Facts



Ask another student to tell where the first student stopped. (4)

Write the following on the board:

$$\begin{array}{r} 8 - 4 = 4 \\ \uparrow \quad \uparrow \quad \uparrow \\ \text{minuend subtrahend difference} \end{array} \quad \begin{array}{l} 8 \leftarrow \text{minuend} \\ - 4 \leftarrow \text{subtrahend} \\ \hline 4 \leftarrow \text{difference} \end{array}$$

Explain that $8 - 4 = 4$ is a number sentence for subtraction. Tell students that the first number is the **minuend**. It tells where to start on the number line. The second number is the **subtrahend**. It tells how far to walk backward. The stopping place is the **difference**.

- Give several examples using horizontal and vertical notations. Have students act out the problems. Have students use addition to check their subtraction. Ask them to label the addends and the sum.

Practice

Complete each number sentence. Check your answer.

$1. 7 + 1 = \underline{8}$

$2. 4 + 6 = \underline{10}$

$3. 7 + 4 = \underline{11}$

$4. 5 + 9 = \underline{14}$

$5. 6 + 8 = \underline{14}$

$6. 8 + 9 = \underline{17}$

$7. 2 + 4 = \underline{6}$

$8. 7 + 6 = \underline{13}$

$9. 9 - 2 = \underline{7}$

$10. 13 - 9 = \underline{4}$

$11. 15 - 6 = \underline{9}$

$12. 7 - 3 = \underline{4}$

$13. 12 - 3 = \underline{9}$

$14. 14 - 8 = \underline{6}$

$15. 10 - 5 = \underline{5}$

$16. 8 - 1 = \underline{7}$

Add or subtract.

$17. \begin{array}{r} 8 \\ +7 \\ \hline 15 \end{array}$	$18. \begin{array}{r} 6 \\ +5 \\ \hline 11 \end{array}$	$19. \begin{array}{r} 4 \\ +3 \\ \hline 7 \end{array}$	$20. \begin{array}{r} 9 \\ +1 \\ \hline 10 \end{array}$	$21. \begin{array}{r} 5 \\ +8 \\ \hline 13 \end{array}$	$22. \begin{array}{r} 2 \\ +7 \\ \hline 9 \end{array}$
---	---	--	---	---	--

$23. \begin{array}{r} 14 \\ -7 \\ \hline 7 \end{array}$	$24. \begin{array}{r} 8 \\ -3 \\ \hline 5 \end{array}$	$25. \begin{array}{r} 12 \\ -9 \\ \hline 3 \end{array}$	$26. \begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$	$27. \begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$	$28. \begin{array}{r} 16 \\ -7 \\ \hline 9 \end{array}$
---	--	---	---	---	---

$29. \begin{array}{r} 4 \\ +5 \\ \hline 9 \end{array}$	$30. \begin{array}{r} 7 \\ +9 \\ \hline 16 \end{array}$	$31. \begin{array}{r} 6 \\ +6 \\ \hline 12 \end{array}$	$32. \begin{array}{r} 5 \\ +2 \\ \hline 7 \end{array}$	$33. \begin{array}{r} 1 \\ +6 \\ \hline 7 \end{array}$	$34. \begin{array}{r} 5 \\ +5 \\ \hline 10 \end{array}$
--	---	---	--	--	---

$35. \begin{array}{r} 13 \\ -8 \\ \hline 5 \end{array}$	$36. \begin{array}{r} 3 \\ -3 \\ \hline 0 \end{array}$	$37. \begin{array}{r} 7 \\ -6 \\ \hline 1 \end{array}$	$38. \begin{array}{r} 12 \\ -8 \\ \hline 4 \end{array}$	$39. \begin{array}{r} 9 \\ -2 \\ \hline 7 \end{array}$	$40. \begin{array}{r} 17 \\ -8 \\ \hline 9 \end{array}$
---	--	--	---	--	---

$41. \begin{array}{r} 6 \\ +9 \\ \hline 15 \end{array}$	$42. \begin{array}{r} 3 \\ +7 \\ \hline 10 \end{array}$	$43. \begin{array}{r} 8 \\ +9 \\ \hline 17 \end{array}$	$44. \begin{array}{r} 11 \\ -9 \\ \hline 2 \end{array}$	$45. \begin{array}{r} 10 \\ -4 \\ \hline 6 \end{array}$	$46. \begin{array}{r} 7 \\ -2 \\ \hline 5 \end{array}$
---	---	---	---	---	--

Problem Solving

Solve each problem.

47. Megan bought a wool scarf for \$7 and a pair of mittens for \$6. How much did she spend?
\$13

48. Butch made 9 sandwiches. His brother ate 7 of them for lunch. How many sandwiches does Butch have left to eat?
2

Lesson 1-1 • Addition Facts and Subtraction Facts

3 Practice

Tell students to complete all the exercises on page 2. Remind students to read carefully to solve the two word problems at the bottom of the page.

4 Assess

Ask students how to check subtraction problems. Then, have them show how to check $12 - 4 = 8$. (add the difference and the subtrahend to make sure it equals the minuend; $8 + 4 = 12$)

For Mixed Abilities

Common Errors • Intervention

Some students may have difficulty mastering their basic addition and subtraction facts. Have students work in pairs to practice the facts by using fact cards that show the fact without the answer on one side and the fact with the answer on the reverse side. When responding, students should say all the numbers in the fact; for example, in response to $5 - 3 = ?$, they should say, "5 minus 3 equals 2." In response to $3 + 5 = ?$, students should say, "3 plus 5 equals 8." The students can each take half the set of fact cards and take turns asking each other to complete the facts.

Enrichment • Spatial Sense

Tell students to draw a map that shows the highway distances between the towns of Paday, Manola, and Ispin if Manola is 7 miles from Ispin and one travels through Manola when driving the 22 miles from Ispin to Paday.

More to Explore • Numeration

Have students bring in the front page of a local newspaper. Tell them to skim the page for any numbers they can find, either in headlines or in stories, and circle them. Have students list the numbers found from least to greatest. Tell students to then write the number words for each number they found. You can also have students exchange newspapers and check each other for numbers they may have missed.

ESL/ELL STRATEGIES

Discuss the words *minuend*, *subtrahend*, and *difference* with ESL students. Write the words on the board, capitalizing the stressed syllables: MINuend, SUBtrahend, DIFFerence. Have students repeat each word and explain its meaning in simple English.

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