

## LESSON

## 14

## Subtracting Two-Digit and Three-Digit Numbers • Missing Two-Digit Addends

## WARM-UP

**Facts Practice:** 100 Addition Facts (Test A)

**Mental Math:**

Add a number ending in two zeros to another number:

- a.  $300 + 400$       b.  $600 + 300$       c.  $250 + 300$

**Review:**

- d.  $63 + 29$       e.  $54 + 19$       f.  $28 + 49$

**Patterns:**

On a hundred number chart, shade the squares that contain the numbers we say when we count by fours from 4 to 100. Which of the shaded squares contain even numbers?<sup>†</sup>

## NEW CONCEPTS

### Subtracting two-digit and three-digit numbers

*Kim had \$37. She spent \$23 to buy a game. How much money did Kim have then?*

We will use bills to illustrate this problem.

Kim had \$37.



She spent \$23.



Then she had ...



The picture above shows that Kim had 3 tens and 7 ones and that she took away 2 tens and 3 ones. We see that she had 1 ten and 4 ones left over, which is \$14.

<sup>†</sup>A hundred number chart is available on Activity Sheet 8 in the *Saxon Math 5/4—Homeschool Tests and Worksheets*.

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The problem is a subtraction problem. With pencil and paper, we solve the problem this way:

First subtract ones.  
Then subtract tens.

$$\begin{array}{r} 37 \\ - 23 \\ \hline 14 \end{array}$$

**Example 1** Subtract:  $85 - 32$

**Solution** We read this problem as “eighty-five minus thirty-two.” This means that 32 is subtracted from 85. We can write the problem and its answer like this:

$$\begin{array}{r} 85 \\ - 32 \\ \hline 53 \end{array}$$

**Example 2** Subtract 123 from 365.

**Solution** The numbers in a subtraction problem follow a specific order. This problem means, “start with 365 and subtract 123.” We write the problem and its answer like this:

$$\begin{array}{r} 365 \\ - 123 \\ \hline 242 \end{array}$$

**Missing two-digit addends** The missing addend in this problem has two digits. We can find the missing addend one digit at a time.

ones column      ↘  
tens column     ↘

$$\begin{array}{r} 56 \\ + \underline{\quad} \\ 98 \end{array}$$

Six plus what number is eight? (2)  
Five plus what number is nine? (4)

The missing digits are 4 and 2. So the missing addend is 42.

**Example 3** Find the missing addend:

$$\begin{array}{r} 36 \\ + \underline{W} \\ 87 \end{array}$$

**Solution** The letter *W* stands for a two-digit number. We first find the missing digit in the ones place. Then we find the missing digit in the tens place.

$$\begin{array}{r} 36 \\ + W \\ \hline 87 \end{array} \quad \begin{array}{l} \text{Six plus what number is seven? (1)} \\ \text{Three plus what number is eight? (5)} \end{array}$$

The missing addend is **51**.

We check our answer by replacing *W* with 51 in the original problem.

$$\begin{array}{r} 36 \\ + W \\ \hline 87 \end{array} \quad \begin{array}{r} 36 \\ + 51 \\ \hline 87 \end{array} \quad \text{check}$$

**Example 4** Find the missing addend:  $M + 17 = 49$

**Solution** We want to find the number that combines with 17 to total 49. The missing addend contains two digits. We will find the digits one at a time.

$$\begin{array}{r} M \\ + 17 \\ \hline 49 \end{array} \quad \begin{array}{l} \text{Two plus seven is nine.} \\ \text{Three plus one is four.} \end{array}$$

We find that the missing number is **32**. We check our answer.

$$\begin{array}{l} M + 17 = 49 \\ 32 + 17 = 49 \quad \text{check} \end{array}$$