

**KEY CONCEPT OVERVIEW**

During the next week, our math class will focus on subtracting two- and three-digit numbers up to 1,000. We will continue working with place value disks and chip model drawings to model and solve subtraction problems requiring unbundling, or decomposing, tens and hundreds. We will use these models side by side with the vertical form. We will notice that when modeling subtraction, we draw or create only the total since the part being subtracted is taken from the total. When using vertical form, we will draw a magnifying glass around the total to help us “look closer” to see whether we have enough ones or tens to subtract.

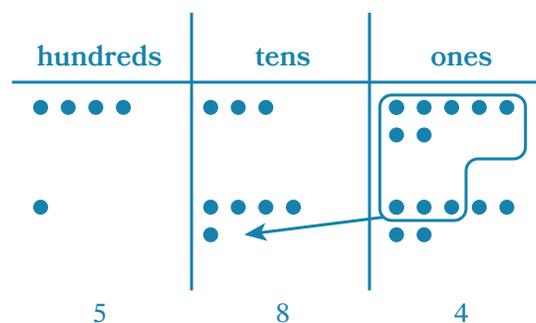
$$\begin{array}{r} 7 \ 11 \\ 18 \cancel{1} \\ -73 \\ \hline 108 \end{array}$$

You can expect to see homework that asks your child to do the following:

- Use a place value chart, place value disks, or the chip model to model and solve three-digit subtraction problems in vertical form.
- Recognize when mental math is more efficient, and use it to solve three-digit subtraction problems. For example, mental math is more efficient to solve  $445 - 135$ , because it is easy to subtract like units without **renaming**: 4 hundreds – 1 hundred = 3 hundreds; 4 tens – 3 tens = 1 ten; 5 ones – 5 ones = 0 ones.
- Explain the relationship between addition and subtraction, and use addition to check subtraction solutions. (See Sample Problem.)
- Choose a strategy to solve, such as the arrow way and counting on, and explain why it is most efficient.

**SAMPLE PROBLEM** *(From Lesson 14)*

If  $584 - 147 = 437$ , then  $437 + 147 = 584$ . Explain why this statement is true by using numbers, pictures, or words.



*I can prove that the statement is true with a chip model. The parts, 437 and 147, are inside the whole, 584. When I add the parts, they equal the whole.*

**HOW YOU CAN HELP AT HOME**

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- When using the vertical form to subtract, encourage your child to draw a magnifying glass around the whole. This strong visual reminds him to look closely at the whole number before beginning to subtract. Ask, “Are we ready to subtract, or do we need to rename?” When your child unbundles for subtraction, the total does not change. Rather, it is renamed with different units. For example, he can unbundle 584 and rename it as 5 hundreds 7 tens 14 ones.
- If your child is eager to use the algorithm, encourage her to use models (e.g., place value disk drawings or the chip model) to show her thinking. Explain that models also help her check her work.
- Ask your child questions as he completes his homework: “Do you have enough ones in the ones place to subtract, or do you need to unbundle a ten?” “Do you have enough tens in the tens place?” “How can you get more tens from the hundreds place?” “How do you show this change in vertical form?”

**TERMS**

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**Rename:** To regroup the place value units of a number. For example, 1 hundred can be renamed, or regrouped, as 9 tens 10 ones.

