Subtracting without Regrouping

CCSS 3.NBT.2
K–12.MP1–2, 4–6, and 8

Objectives	**Books & Materials**	**Assignments** W
• Subtract numbers with up to four digits, without regrouping.	• *Math in Focus* 3A • *Workbook* 3A • base-ten blocks • place-value mat	❑ Complete Warm-up. ❑ Read and complete pp. 94–97, *Math in Focus* 3A. ❑ Complete pp. 59–60, *Workbook* 3A. ❑ Complete Math Checkpoint.

Warm-up

Use base-ten blocks to solve each problem.

1. What is the difference between 175 and 43?

2. What is the difference between 216 and 102?

Instruction

Read **Learn** on p. 94 in **Math in Focus**. Model the problem with your base-ten blocks. First, show 4,368 on the place-value mat. Did you show 4 thousand-cubes, 3 hundred-squares, 6 ten-rods, and 8 unit cubes? Then take away base-ten blocks to find the *difference*, or answer to the subtraction problem. Which place do you subtract first? You subtract the ones first and work from right to left to subtract from each place.

Read **Check** on p. 95. How do you check subtraction? You check subtraction with addition. Add the difference to the number you subtracted. The sum should equal the first number.

Complete **Guided Practice** on p. 95. Remember to subtract the ones first, then the tens, then the hundreds, and finally the thousands. Use base-ten blocks to help you.

Helpful Online Resources

W **Khan Academy:** *2 and 3-Digit Subtraction* (Focus on the three-digit subtractions to practice subtraction without regrouping.)

To the Learning Guide

Allow your student to use the base-ten blocks as needed until she understands the concept. Point out the vocabulary term, *difference*, and explain it to your student. Ask your student to point to the difference of 3,144 shown on p. 94.

If your student needs more help, give her a subtraction problem that does not require regrouping, such as 454 – 132. Write it in vertical form, labeling each place. Ask your student to show 454 with base-ten blocks on a place-value mat. Guide your student to first note how many ones need to be subtracted, moving the unit cubes off the place-value mat but keeping them nearby. Then guide your student to look at the tens place, noting how many ten-rods to remove. Repeat the process with the hundreds place. Finally, have your student count and name the hundreds, tens, and ones in order from left to right that remain on the place-value mat. Point out that what remains is the difference between the two numbers in the written equation.

Watch For These Common Errors

! Some students subtract from left to right because that is how numbers are read. Encourage your student to subtract from right to left to reinforce how she will subtract when regrouping is needed.

Practice

Complete pp. 96–97 in **Math in Focus**. Then complete pp. 59–60 in **Workbook**.

Wrap-up

Today you learned how to subtract four-digit numbers without regrouping.

Subtract the ones.	Subtract the tens.	Subtract the hundreds.	Subtract the thousands.
5,687 − 3,214 3	5,687 − 3,214 73	5,687 − 3,214 473	5,687 − 3,214 2,473

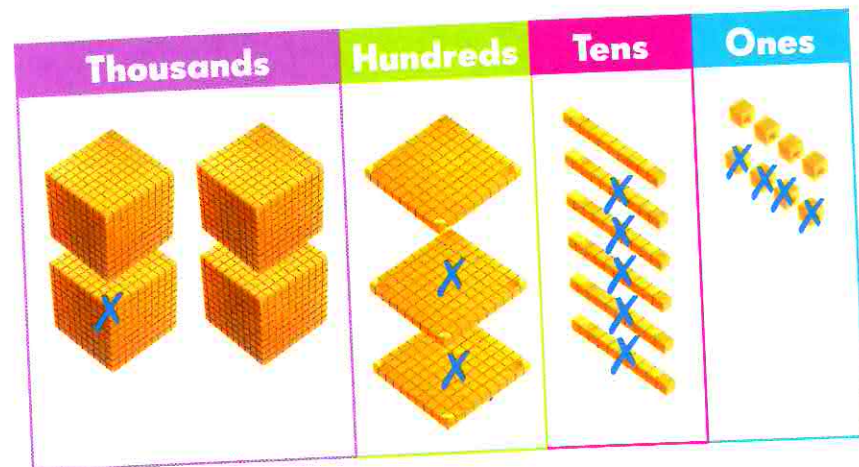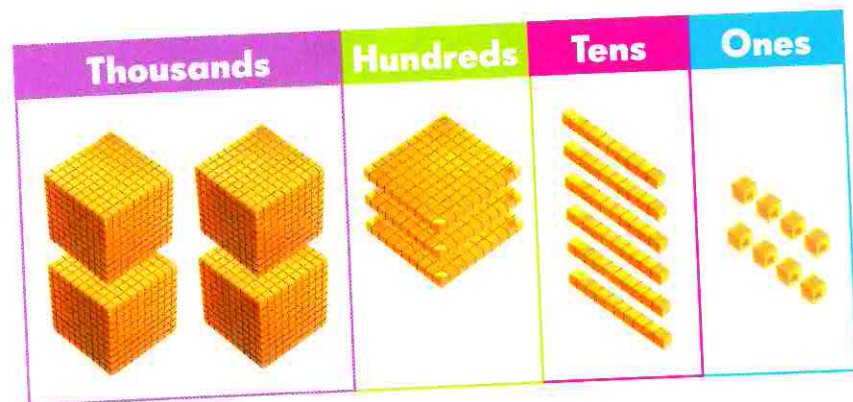☑ **Complete Math Checkpoint**

03M-LMA

4.1 Subtraction Without Regrouping

Lesson Objective

- Use base-ten blocks to subtract without regrouping.

Learn **Use base-ten blocks and a place-value chart to find the difference .**

Find the difference between 4,368 and 1,254.

Thousands	Hundreds	Tens	Ones

Thousands	Hundreds	Tens	Ones

The difference between 4,368 and 1,254 is 3,114.

Step 1
Subtract the ones.

$$\begin{array}{r} 4,368 \\ -\ 1,254 \\ \hline 4 \end{array}$$

Step 2
Subtract the tens.

$$\begin{array}{r} 4,368 \\ -\ 1,254 \\ \hline 14 \end{array}$$

Step 3
Subtract the hundreds.

$$\begin{array}{r} 4,368 \\ -\ 1,254 \\ \hline 114 \end{array}$$

Step 4
Subtract the thousands.

$$\begin{array}{r} 4,368 \\ -\ 1,254 \\ \hline 3,114 \end{array}$$

When you subtract numbers, the answer is the difference.

Check!

If 4,368 − 1,254 = 3,114,
then 3,114 + 1,254 should equal 4,368.
The answer is correct.

$$\begin{array}{r} 3,114 \\ +\ 1,254 \\ \hline 4,368 \end{array}$$

Guided Practice

Find the missing numbers.

1. The difference between 7,526 and 2,103 is ____ .

Thousands	Hundreds	Tens	Ones
7	5	2	6
− 2	1	0	3

Subtract. Use base-ten blocks to help you.

2. $\begin{array}{r} 2,356 \\ -\ 1,243 \\ \hline \end{array}$

Add to check your answers.
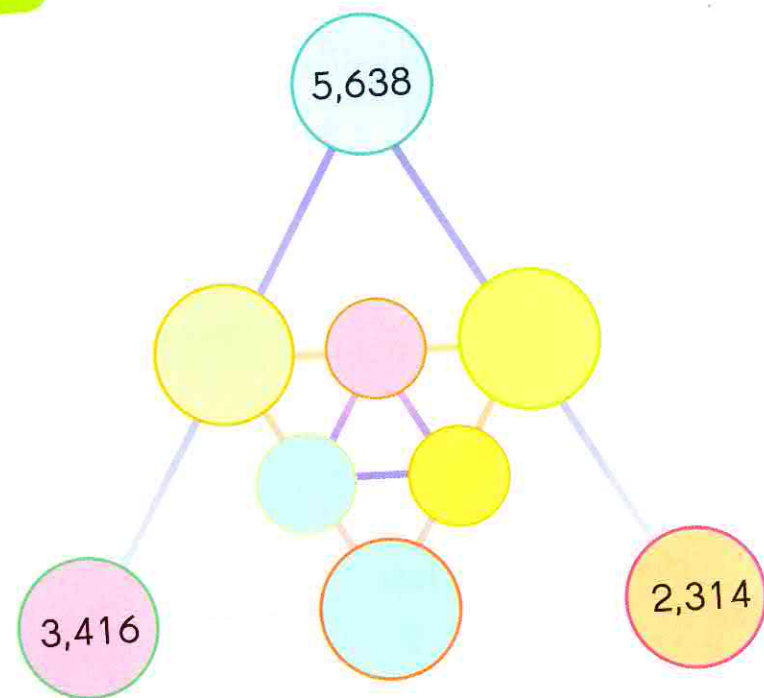
3. $\begin{array}{r} 3,418 \\ -\ 3,102 \\ \hline \end{array}$

4. $\begin{array}{r} 9,832 \\ -\ 7,810 \\ \hline \end{array}$

Hands-On Activity

👋 **Hands-On Activity**

👥 **WORK IN PAIRS**

STEP 1 Use the figure provided. Choose two numbers from the figure. Subtract the number that is less from the greater number. Use base-ten blocks to help you.

STEP 2 Write the answer in the circle between the two numbers.

STEP 3 Repeat **STEP 1** and **STEP 2** until you fill in all the circles.

Let's Practice

Subtract.

1.
```
   3,678
-  2,417
```

2.
```
   4,853
-  1,121
```

3.
```
   5,942
-  3,732
```

4.
```
   9,603
-  5,501
```

5. The difference between 4,298 and 2,045 is ____.

6. The difference between 5,138 and 7,459 is ____.

7. 4,786 − 2,534 = ____

8. 9,205 − 6,102 = ____

Add to check your answers.

👤 **ON YOUR OWN**

Go to Workbook A: Practice 1, pages 59–60

Chapter 4

Subtraction up to 10,000

Practice 1   Subtraction Without Regrouping

Subtract.

Example

```
  3, 8 1 7
−    7 0 5
─────────
  3, 1 1 2
```

1.
```
  9, 3 4 9
− 5, 1 3 8
```

2.
```
  7, 3 5 2
− 4, 3 2 1
```

Subtract. Use base-ten blocks to help you.

Example

5,286 − 5,123 = ___163___

```
  5 , 2 8 6
− 5 , 1 2 3
─────────
      1 6 3
```

3.   3,646 − 2,523 = _____

4.   9,646 − 523 = _____

5.   5,564 − 23 = _____

Find the difference. Use base-ten blocks to help you.

> **Example**
>
> The difference between 7,249 and 249 is ___7,000___.

6. The difference between 5,286 and 5,000 is _____.

7. The difference between 4,301 and 2,101 is _____.

Subtract.

> **Example**
>
> $3,497 - 2,391 =$ ___1,106___
>
> Work
> $$\begin{array}{r} 3,497 \\ -\ 2,391 \\ \hline 1,106 \end{array}$$

8. $8,421 - 310 =$ _____

Work

9. $9,786 - 72 =$ _____

Work

10. $6,974 - 1,813 =$ _____

Work

11. $7,568 - 4,022 =$ _____

Work

12. $5,493 - 3,291 =$ _____

Work