

KEY CONCEPT OVERVIEW

During the next few days, our math class will work with **place value units** of ones, tens, and hundreds. We will learn how to form a **unit**, or **bundle**, of ten, of a hundred, and of a thousand. As students count to 1,000, they will learn to **skip-count** efficiently by reaching a **benchmark number**—a ten or a hundred.

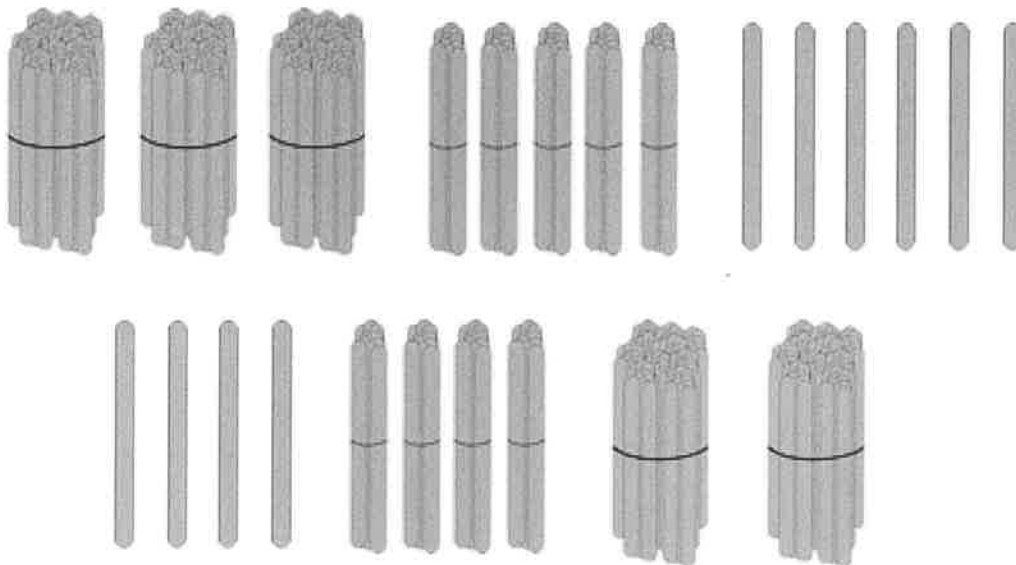
You can expect to see homework that asks your child to do the following:

- Order units from largest to smallest; for example, 3 hundreds, 5 tens, 9 ones.
- Count groups, or bundles, of hundreds, tens, and ones. (See image at right.)
- Draw and label an amount with bundles of hundreds, tens, and ones.
- Skip-count by hundreds, tens, and ones to reach a given number.



SAMPLE PROBLEM (From Lesson 3)

Show a way to count from 356 to 700 using ones, tens, and hundreds.



357, 358, 359, 360, 370, 380, 390, 400, 500, 600

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org

HOW YOU CAN HELP AT HOME

- Invite your child to **skip-count** up and down by tens. Provide a starting number (e.g., 80) and ask your child to skip-count up from that number. Point a finger upward as he calls out each ten. When he passes 100, close your fist as a signal to stop, and then point downward, indicating that he should change direction and begin skip-counting down. Continue, having your child change direction periodically. Also change the upper and lower limits of the skip-counting. For example, the counting might go as follows: 80, 90, 100, 110, 120, 130. (Close fist; point downward.) 120, 110, 100, 90. (Close fist; point upward.) 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220. (Close fist; point downward.) 210, 200, 190, 180.
- Find materials in your home—such as toothpicks, straws, crayons, or pipe cleaners—that you can gather and secure with a rubber band to form bundles of ten. Invite your child to make as many bundles of ten as possible. Have her count the bundles, skip-counting by tens. Then challenge her to state the total in **unit form** (e.g., 20 tens) and in **standard**, or number, form (e.g., 200). If she has assembled enough bundles of ten, use additional rubber bands to gather them into bundles of 100. Again, ask your child to state the total value of the bundles in unit form and in standard form.
- Keep some of the bundled materials in a set to use for homework support. If your child gets stuck adding by tens or hundreds, encourage him to count bundles, and then relate the bundles to the written problems.

TERMS

Benchmark number: A number that provides an easy starting and stopping place when counting (or adding or subtracting). For example, when counting from 93 to 158, students might use benchmarks of 100 and 150 to keep track of where they are in the count.

Bundling: Putting together smaller units to make a larger unit. For example, students put together 10 ones to make a bundle of 1 ten and put together 10 tens to make a bundle of 1 hundred.

Place value: The value of a digit according to its placement in a number. For example, the 4 in 348 is in the tens place and has a value of 40 (4 tens).

Skip-count: To count by a number other than 1. For example, skip-counting by twos means counting 2, 4, 6, 8, 10, and so on.

Standard form (number form): The standard, or usual, way to represent a number (e.g., 348).

Unit: Any single unit of measurement (e.g., a one, ten, hundred, meter, or gram). Grade 2 students work with these place value units: 1s, 10s, and 100s.

Unit form: A number represented in place value units. For example, in unit form, 348 is 3 hundreds 4 tens 8 ones.

KEY CONCEPT OVERVIEW

During the next week, our math class will explore the value of three-digit numbers. We will learn how to name and draw numbers in standard, unit, **expanded**, and **word forms**. Students will find that they can change the order of the units, but the value of the number stays the same. For example, 2 hundreds 5 tens 6 ones = 256; likewise, 5 tens 6 ones 2 hundreds = 256.

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

- Identify the value of a number shown in bundles of hundreds, tens, and ones or shown in standard, unit, expanded, or word form.
- Use **place value charts**, **number bonds**, expanded form, and standard form to express the value of numbers up to 1,000, showing the value of each digit.
- Match numbers with their word forms.
- Name the value of the digit in any given place in a three-digit number. For example, the value of the 6 in 364 is 60, or 6 tens.

SAMPLE PROBLEM (From Lesson 5)

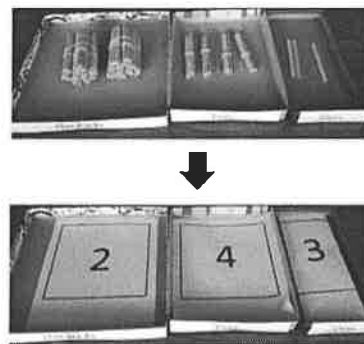
How do you write 6 tens 1 hundred 8 ones in standard form?

168

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

- Use bundled materials (such as straws) to show a three-digit value (e.g., 243). Have your child use standard form (243), unit form (2 hundreds 4 tens 3 ones), and expanded form ($200 + 40 + 3$) to name the value. Vary the order of the bundles so your child can practice unit form and expanded form out of unit order (e.g., 4 tens 3 ones 2 hundreds; $40 + 3 + 200 = 243$).
- Encourage your child to practice skip-counting by tens and by hundreds, up to 1,000, starting at any number. When your child begins demonstrating strong, consistent abilities, ask him to name the ending number in unit form as well as in standard form.



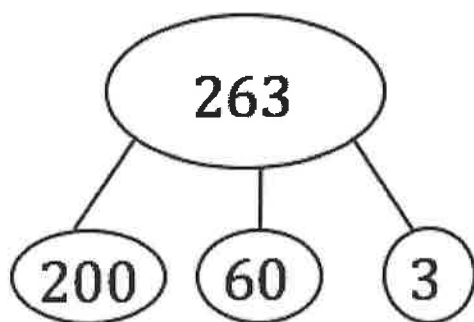
TERMS

Expanded form: A number represented as an addition expression or a number sentence to show the value of each digit. For example, $300 + 40 + 8$ is the expanded form of 348.

Word form: A number represented only with words (e.g., five hundred seventy-six).

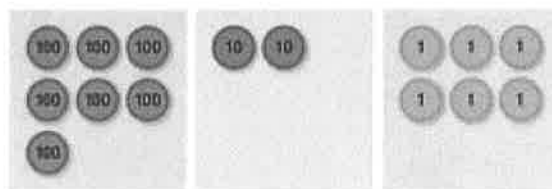
MODELS

Number Bond: A model showing the relationship between a number (whole) and its parts. In Module 3, number bonds are used to represent numbers broken apart into hundreds, tens, and ones.



Place Value Chart: A graphic organizer that provides a column for each unit in a number.

hundreds	tens	ones
2	4	3



KEY CONCEPT OVERVIEW

During the next few days, our math class will use money to deepen place value understanding, drawing comparisons between ones, tens, and hundreds, and \$1, \$10, and \$100 bills. We will learn how 10 one-dollar bills, 10 ten-dollar bills, and 10 hundred-dollar bills can each be changed for a larger unit. For example, 10 one-dollar bills can be traded or changed out for 1 ten-dollar bill. This modeling helps students make sense of our number system.

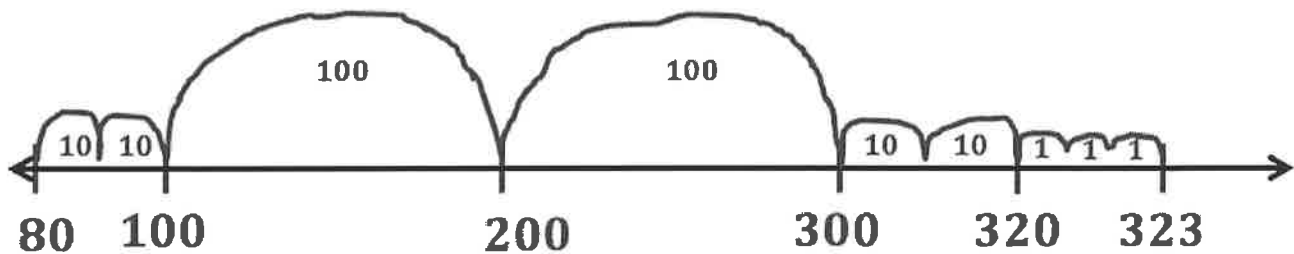
You can expect to see homework that asks your child to do the following:

- Count combinations of \$100, \$10, and \$1 bills.
- Use an empty **number line** to model how to count in various orders. For example, count first by tens and then by hundreds, or count first by hundreds and then by tens.
- Solve word problems involving money.

SAMPLE PROBLEM (From Lesson 9)

Show one way to count from \$80 to \$323.

Getting to the closest benchmark of tens or hundreds on an empty number line:



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HOW YOU CAN HELP AT HOME

- Play family board games that incorporate counting money. Focus particularly on \$1, \$10, and \$100 bills.
- Help your child practice mixed counting with ones, tens, and hundreds. Use toothpicks or straws to make a single stick, a bundle of 10, and a bundle of 100. Then invite your child to count down from a number (e.g., 1,000), while you hold up a bundle or single stick to indicate whether to count by ones, tens, or hundreds. Alternate between bundles and a single stick several times during the count. For example, the activity might go like this:

Adult: Let's start at 1,000 and count down. Ready? (Hold up a bundle of 10. If needed, create visual support by writing the numbers on paper as your child counts.)

Child: 1,000, 990, 980, 970, 960, 950, 940.

Adult: (Hold up a bundle of 100.)

Child: 840, 740, 640, 540.

Adult: (Hold up a bundle of 10.)

Child: 530, 520, 510, 500.

Adult: (Hold up a single toothpick or straw.)

Child: 499, 498, 497, 496, 495.

Adult: (Hold up a bundle of 10.)

Child: 485, 475, 465.

Continue in this manner until your child reaches zero.

MODELS

Empty Number Line: A number line with no numbers or hash marks. Students show an increase or decrease in a starting number by recording jumps of ones, tens, and hundreds. (See Sample Problem image above for an example of how to use an empty number line.)

KEY CONCEPT OVERVIEW

During the next week, our math class will learn about place value. Using **place value disks**, or **number disks**, we will learn how to count the total value of ones, tens, and hundreds in a given number. We will also learn to exchange smaller and larger units of equal value (e.g., exchange 10 ones for 1 ten), read and write numbers up to 1,000, and model numbers in standard form, expanded form, and unit form.

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

- Use place value disks and drawings to model two- and three-digit numbers.
- Say numbers in standard form (e.g., 349) and unit form (3 hundreds 4 tens 9 ones).
- Exchange units of equal value, for example, 30 ones for 3 tens, or 4 hundreds for 40 tens.
- Use the **RDW process** to solve word problems involving three-digit numbers.

SAMPLE PROBLEM (From Lesson 14)

Complete the unit form for 316.

316 = **3** *hundreds* **1** *ten* **6** *ones*

316 = **3** *hundreds* **16** *ones*

316 = **31** *tens* **6** *ones*

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HOW YOU CAN HELP AT HOME

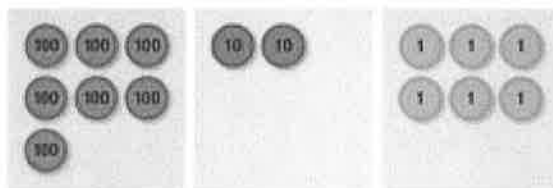
- Practice counting in unit form. Partner A says a number (e.g., 234), and Partner B repeats it in unit form (2 hundreds 3 tens 4 ones). Take turns with your child being Partner A and Partner B.
- Play 10 More/10 Less. Partner A says a number (e.g., 30), and Partner B says the number that is 10 less (20). After every few turns, alternate between 10 more and 10 less. You can also play 100 More/100 Less. Take turns with your child being Partner A and Partner B.
- Play How Many Tens? Partner A says a number (e.g., 23 ones). Partner B tells how many tens are in the number (2 tens). You can also play How Many Hundreds? or How Many Hundreds and How Many Tens? Encourage your child to give each answer in both unit form (e.g., 3 hundreds 2 tens 5 ones) and standard form (325). Again, take turns with your child being Partner A and Partner B.

TERMS

RDW process: A three-step process used in solving word problems. **RDW** stands for Read, Draw, Write: **Read** the problem for understanding; **Draw** a picture to help make sense of the problem; **Write** an equation and a statement of the answer.

MODELS

Place Value Disks or **Number Disks:** Circles, or disks, that have a value of 1, 10, or 100. (In later grades, disks may have a larger or smaller value, such as 1,000 or 0.1.)



KEY CONCEPT OVERVIEW

During the next few days, our math class will learn about comparing three-digit numbers. We will learn how to use the greater than, less than, and equal to symbols ($>$, $<$, $=$); how to compare numbers in different forms; and how to order numbers in different forms.

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

- Represent numbers by drawing place value disks on place value charts.
- Compare and order numbers, using the words *greater than*, *less than*, or *equal to* as well as the comparison symbols ($>$, $<$, $=$).
- Compare numbers in different forms; for example, 307 is greater than 30 tens.
- Make choices about the simplest way to represent a number with place value disk drawings. For example, students show 318 on the place value chart with 3 hundreds, 1 ten, and 8 ones.

SAMPLE PROBLEM (From Lesson 18)

Order the following from least to greatest in standard form:

- | | | | | |
|----|--------------------|-----------------------|-----|----------------------|
| a. | 436 | 297 | 805 | 297, 436, 805 |
| b. | 317 | three hundred seventy | 307 | 307, 317, 370 |
| c. | 5 hundreds 9 ones | 51 tens 9 ones | 591 | 509, 519, 591 |
| d. | 16 ones 7 hundreds | $6 + 700 + 10$ | 716 | 716, 716, 716 |

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HOW YOU CAN HELP AT HOME

- Play games with word form, unit form, and expanded form. Roll three dice (or use a spinner, numbers drawn from a hat, playing cards, etc.) to make a three-digit number (e.g., 426). Player A says the number in word form (four hundred twenty-six). Player B says the number in unit form (4 hundreds 2 tens 6 ones). Player C says the number in expanded form ($400 + 20 + 6$). Take turns so that each player gets multiple opportunities to say numbers in each form.
- Provide opportunities for your child to compare numbers in real life situations. For example, you might say, “I have 106 pennies in my jar. You have 160 pennies in your piggy bank. Which of us has the greater amount? How do you know?”
- Encourage your child to solve problems (e.g., $37 + 8$) by using the make a ten addition strategy. Then ask him to explain the solution strategy. For example, “I know that 37 needs 3 to make 40, and I can break 8 into 3 and 5. My new, easier problem is $40 + 5$, which is 45.”

KEY CONCEPT OVERVIEW

During the next few days, our math class will practice identifying 1, 10, or 100 more or less than a given number. We will learn to use precise language to write statements that compare numbers, such as “452 is 10 less than 462.”

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

- Identify the number that is 1, 10, or 100 more than a given number.
- Identify the number that is 1, 10, or 100 less than a given number.
- Skip-count to complete a patterned sequence of numbers, for example, 218, 228, ____, ____, ____, 268.
- Find the counting patterns necessary to complete number chart puzzles.

SAMPLE PROBLEM (From Lesson 20)

Complete the sentences below.

10 more than 392 is **402**.

10 less than **825** is 815.

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HOW YOU CAN HELP AT HOME

- To help your child become more comfortable adding and subtracting 10 mentally, first make the experience concrete. When practicing addition and subtraction, have your child use pennies, dimes, and dollar coins or bills to represent ones, tens, and hundreds. (Your child could also use toothpicks or straws to make a single stick, a bundle of 10, or a bundle of 100.)
- Play Guess My Number. Think of a number, but don't tell your child. Give clues such as using 1 more, 10 more, 100 more, 1 less, 10 less, or 100 less to help your child determine the mystery number. As he becomes more proficient, use clues that challenge him to cross the hundred. For example, "My number is 10 less than 402," or "My number is 10 more than 392."
- Help your child practice mixed counting with ones, tens, and hundreds. Use toothpicks or straws to make a single stick, a bundle of 10, and a bundle of 100. Invite your child to count down from 1,000, holding up a bundle or a single stick to indicate whether to count by hundreds, tens, or ones. Alternate between bundles and a single stick several times during the count. For example, the activity might go like this:

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