

TOPIC 6

Place Value: Numbers to 10,000

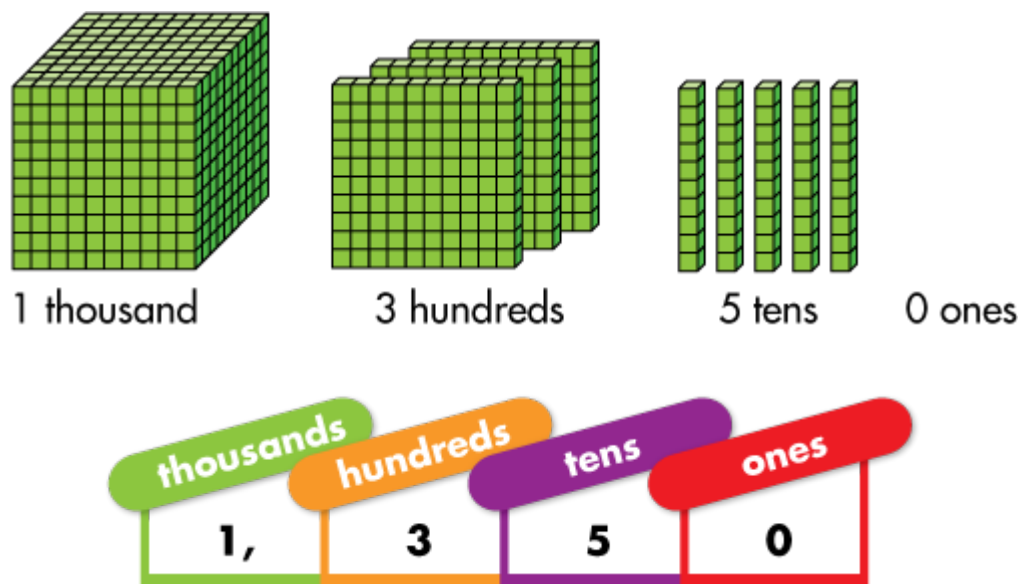
OVERVIEW

Topic 6 focuses on building an understanding of place value as your child works with 4-digit numbers. There is an emphasis on thinking flexibly about numbers so that they can be broken apart and combined in different ways. This ability to think flexibly will help your child with later mathematical work, especially computation.

NUMBERS IN THE THOUSANDS

Use Place Value to Read and Write Numbers Your child will learn to read and write numbers from 0 to 10,000 using standard form, expanded form, and word form.

The number shown using place-value blocks and the place-value chart can be written in three different forms.



Word form: one thousand, three hundred fifty

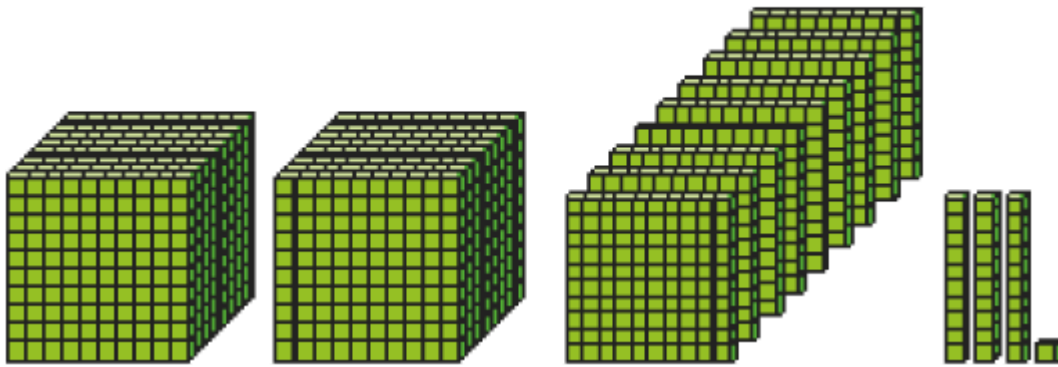
Standard form: 1,350

Expanded form: $1,000 + 300 + 50$

COMPOSE AND DECOMPOSE NUMBERS

Use Place-Value Relationships to Compose and Decompose Numbers Your child will combine and break apart place-value blocks to show the same number in different ways. Here are three different ways to show 2,931.

2 thousands + 9 hundreds + 3 tens + 1 one



Break 1 thousand into 10 hundreds.

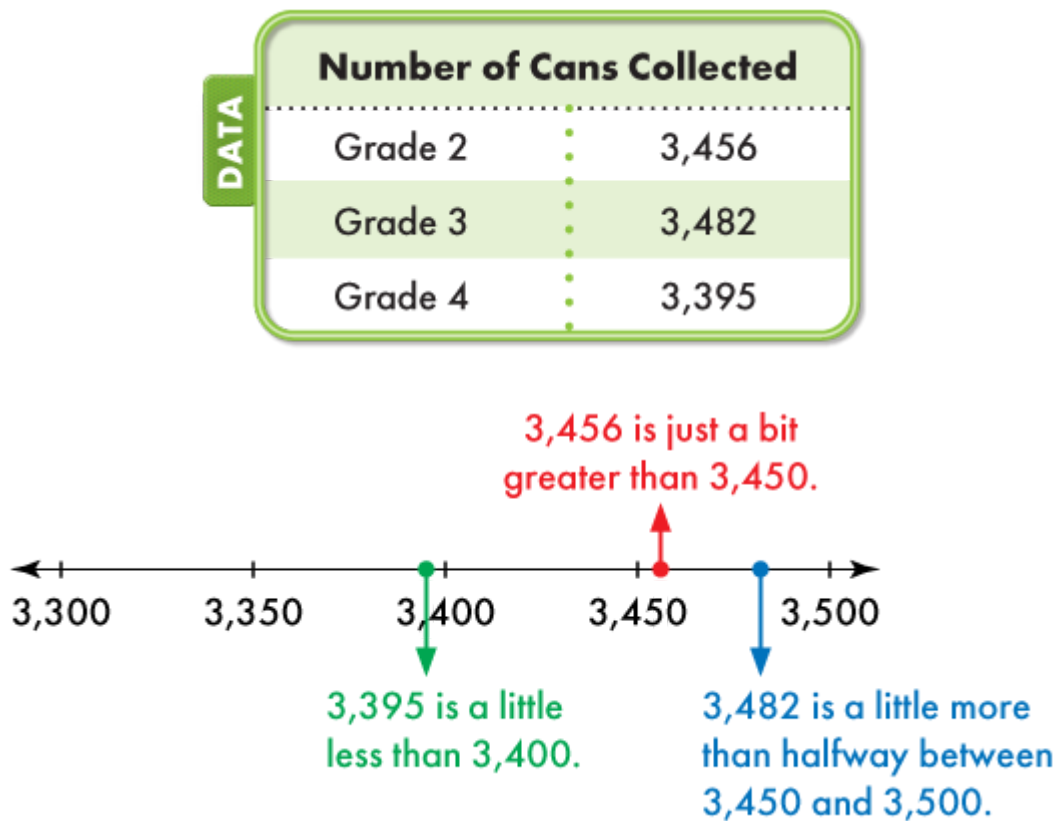
2 thousands + 9 hundreds + 3 tens + 1 one
↓ ↓ ↓ ↓
1 thousand + 19 hundreds + 3 tens + 1 one

Break 1 ten into 10 ones.

2 thousands + 9 hundreds + 3 tens + 1 one
↓ ↓ ↓ ↓
2 thousands + 9 hundreds + 2 tens + 11 ones

PLOT, ORDER, AND COMPARE NUMBERS

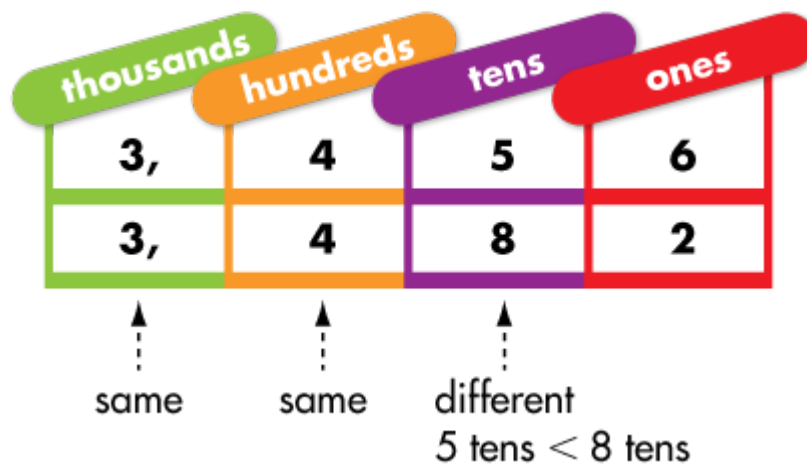
Plot, Order, and Compare Numbers Using understanding of place value, your child will plot numbers on a number line to compare them. Here is how your child might use the data in the table to solve the problem “Which grade will get first prize for collecting the most cans? Second prize? Third prize?”



$$3,482 > 3,456 > 3,395$$

So, Grade 3 gets first prize, Grade 2 gets second prize, and Grade 4 gets third prize.

A key concept your child will learn is that to compare numbers, you start at the place farthest left and then move right to the place in which the digits differ. Then compare the values of those digits.

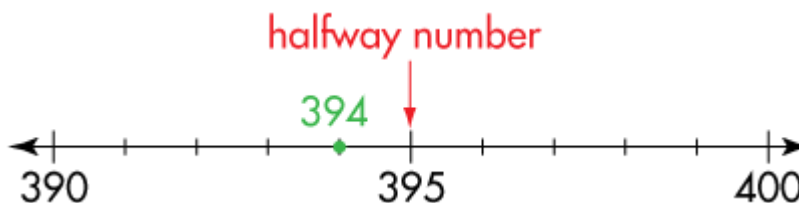


3,482 is greater than 3,456 because 8 tens are greater than 5 tens.

ROUND TO THE NEAREST TEN OR HUNDRED

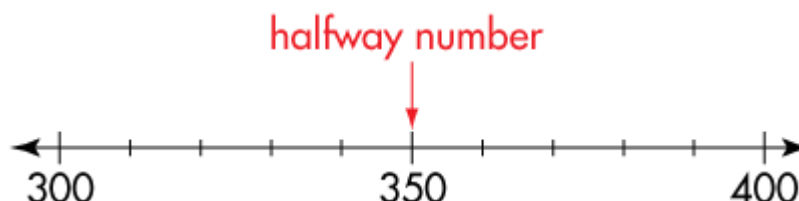
Use Place Value and Number Lines to Round Your child will learn that to round to the nearest ten or hundred, find the closest multiple of ten or one hundred for a given number. A number line is a helpful tool to use when rounding.

To round 394 to the nearest ten, see that 394 is closer to 390 than 400. So, 394 rounds to 390.



If a number is exactly halfway between the numbers being rounded to, round to the greater number.

To round 350 to the nearest hundred, see that 350 is halfway between 300 and 400. So, round 350 to 400.





CONNECT THE MATH

You can connect the math in this topic to everyday experiences. Look for numbers in the thousands in your daily activities with your child. If you cannot find numbers around you, create 4-digit numbers using a deck of playing cards. First have your child read the number you create. Many children need help reading numbers that include zeroes, such as 4,008 (four thousand eight). Then “play” with the number, asking your child to compare it to another number, break it apart, or round the number to the nearest ten or hundred. Ask, “Which is greater: 3,950 or 3,860?”; “How could you show 3,950 with only two thousands?” (2 thousands, 19 hundreds, 5 tens); or “What is 3,950 rounded to the nearest hundred?”



TOPIC 6 LESSONS

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| Lesson 6-1 | <u>Read and Write Numbers in the Thousands</u> |
| Lesson 6-2 | <u>Place-Value Relationships</u> |
| Lesson 6-3 | <u>Plot, Order, and Compare Numbers</u> |
| Lesson 6-4 | <u>Round Whole Numbers to the Nearest 10 or 100</u> |
| Lesson 6-5 | MATH THINKING AND REASONING
Use Patterns and Structure to Make Connections |