

# NUMBER WORLDS™

Accelerate Math Success



# Lesson 1

## Find the Math

Numbers are all around us. Knowing numbers helps us understand and talk about the world.



PHOTO: Fotosearch/Getty Images

1. Numbers give us useful information. How might this sign be useful?  

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2. The abbreviation *POP.* stands for "population." This number tells how many people live in the area. How many people live in Malibu?  

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3. There is another number on this sign. It comes after the population number. *ELEV.* stands for "elevation." It tells how many feet above sea level the city is. What is the elevation of Malibu?  

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# Lesson 1

## Key Idea

$$\begin{array}{ccccccc}
 3,000 & + & 100 & + & 70 & + & 9 \\
 3 \text{ thousands} & + & 1 \text{ hundred} & + & 7 \text{ tens} & + & 9 \text{ ones}
 \end{array}$$

Thousands	Hundreds	Tens	Ones
3	1	7	9

This number in standard form is 3,179. The comma is placed between the thousands digit and the hundreds digit.

## Try This

**Write** the place value of each digit. Then write each number in standard form.

1.  $2,000 + 500 + 90 + 4$

\_\_\_\_\_ thousands + \_\_\_\_\_ hundreds + \_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

2.  $10,000 + 700 + 30 + 2$

\_\_\_\_\_ thousands + \_\_\_\_\_ hundreds + \_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

**Write** the expanded form of each number.

3. 1,962

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

4. 6,128

\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

## Practice

**Write** each number in standard form.

5.  $1,000 + 900 + 30 + 7$  \_\_\_\_\_

6.  $4,000 + 200 + 60 + 1$  \_\_\_\_\_

7.  $5,000 + 600 + 40$  \_\_\_\_\_

8.  $3,000 + 70 + 8$  \_\_\_\_\_

**Write** the expanded form of each number.

**9.** 2,345 \_\_\_\_\_

**10.** 4,756 \_\_\_\_\_

**11.** 1,312 \_\_\_\_\_

**Write** the place-value name of each underlined digit.  
Then write the value of each underlined digit.

**12.** 1,614 place \_\_\_\_\_ value \_\_\_\_\_

**13.** 6,710 place \_\_\_\_\_ value \_\_\_\_\_

**14.** 5,692 place \_\_\_\_\_ value \_\_\_\_\_

**15.** 2,078 place \_\_\_\_\_ value \_\_\_\_\_

**16.** Model 1,340 with base-ten blocks. Write the value of each digit.

\_\_\_\_ thousands \_\_\_\_ hundreds \_\_\_\_ tens \_\_\_\_ ones

Use base-ten blocks to add 480 to 1,340. Write the value of each digit in the new number.

\_\_\_\_ thousands \_\_\_\_ hundreds \_\_\_\_ tens \_\_\_\_ ones

What is this number in standard form? \_\_\_\_\_

## Reflect

Write the expanded form and the standard form of a number that has seven thousands, three hundreds, eight tens, and nine ones.

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Write what digit is in the thousands place, hundreds place, tens place, and ones place.

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# Lesson 2

## Key Idea

You can use a place-value chart to help write numbers in word form.

In standard form, this number is written as 1,362,124.

ten millions	millions		hundred thousands	ten thousands	thousands		hundreds	tens	ones
	1	,	3	6	2	,	1	2	4

Here is the number written in word form: one million three hundred sixty-two thousand one hundred twenty-four.

## Try This

**Answer** the questions based on the number 2,264,396.

1. What number is in the tens place?

\_\_\_\_\_

2. What number is in the millions place?

\_\_\_\_\_

3. What number is in the ten thousands place?

\_\_\_\_\_

4. What number is in the hundreds place?

\_\_\_\_\_

## Practice

**Write** each number in word form, and write each word form as a number.

5. 3,846

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6. sixty-nine thousand sixty-two

---

7. 346,902

---

8. two million two thousand four hundred twenty-nine

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9. fifteen million six hundred thirty-four thousand nine hundred twenty-nine

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10. 24,804,734

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## Reflect

Create your own number that is in the millions. Write the standard form in the place-value chart. Then write the word form on the line.

ten millions	millions		hundred thousands	ten thousands	thousands		hundreds	tens	ones
		,				,			

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# Lesson 3

## Key Idea

A number can be written in an expanded form.

The number 1,527 is shown below in the expanded form.

$$1,000 + 500 + 20 + 7$$

Each digit shows its value. All the values for the number are added together.

## Try This

**Write** the missing number in expanded form.

1. 512

$$500 + \underline{\hspace{2cm}} + 2$$

2. 2,395

$$2,000 + \underline{\hspace{2cm}} + 90 + 5$$

3. 10,645

$$\underline{\hspace{2cm}} + 600 + 40 + 5$$

## Practice

**Write** the number in expanded form.

4. 4,612

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5. 23,452

---

6. 5,109

---

7. 37,001

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8. 3,980,032

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9. 506,708

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10. 30,256,837

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## Reflect

How does knowing place value help you write numbers in the expanded form?

# Lesson 4

## Key Idea

Two numbers can be compared using **place value**.

Place the correct sign,  $>$ ,  $<$ , or  $=$  in the circle.

$$437,358 \bigcirc 452,299$$

Compare the hundred-thousands place. The digits are the same. Then compare the ten-thousands place:

5 ten thousands are greater than 3 ten thousands.

So,  $437,358 < 452,299$ .

## Try This

**Place** the correct sign,  $>$ ,  $<$ , or  $=$  in the circle.

1.  $37,009 \bigcirc 9,573$

2.  $8,529 \bigcirc 8,528$

3.  $108,427 \bigcirc 108,427$

## Practice

**Place** the correct sign,  $>$ ,  $<$ , or  $=$ , in the circle.

4.  $7,252 \bigcirc 9,123$

5.  $11,046 \bigcirc 8,927$

6.  $672,555 \bigcirc 672,547$

7.  $402,757 \bigcirc 411,000$

8.  $98,757 \bigcirc 200,234$

9.  $5,757 \bigcirc 5,757$

10.  $883,709 \bigcirc 709,883$

11.  $999,482 \bigcirc 1,482,999$

12.  $52,076 \bigcirc 52,167$

13.  $1,300,000 \bigcirc 300,001$

14.  $43,012 \bigcirc 43,012$

15.  $5,203,159 \bigcirc 11,203,159$

## Reflect

Rick says he can always tell the greater number. He says he looks at the first digit. Whichever digit is greater, that number is greater. Do you agree? Explain?



## Lesson 5 Review

This week you renamed numbers into tens and ones, studied place value to a million, wrote numbers in expanded form, and compared which number was greater or lesser in value.

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**Lesson 1** Write each number in standard form.

1.  $4000 + 600 + 10 + 8$

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2.  $600 + 20 + 1$

---

Write each number in the expanded form.

3. 542

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4. 1,071

---

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**Lesson 2** Write each number in word form.

5. 639,827

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6. 1,030,649

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7. 84,015,604

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### Lesson 3 Write each number in the expanded form.

8. 409,111

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9. 9,207,574

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10. 33,003,208

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### Lesson 4 Place the correct sign, $>$ , $<$ , or $=$ in the circle.

11. 499,999  499,000,000

12. 891,289  891,289

13. 8,710,476  10,609,442

### Reflect

Without repeating any digit, write the greatest number possible in the millions. Is there more than one right answer? Why or why not?



# Project

## Owning a Sports Team

1. What sport did you choose? \_\_\_\_\_
2. What city did you choose? \_\_\_\_\_

**Use** the list of cities below. The population or the number of people in the city is listed next to the state abbreviation.

Chicago, IL: 2,695,598	Dallas, TX: 1,187,816	Houston, TX: 2,099,451
Los Angeles, CA: 3,792,621	New York, NY: 8,175,133	Philadelphia, PA: 1,526,006
San Jose, CA: 945,942		

3. List each city in the chart in order by population. List the city with the most people first.

City	State	Population

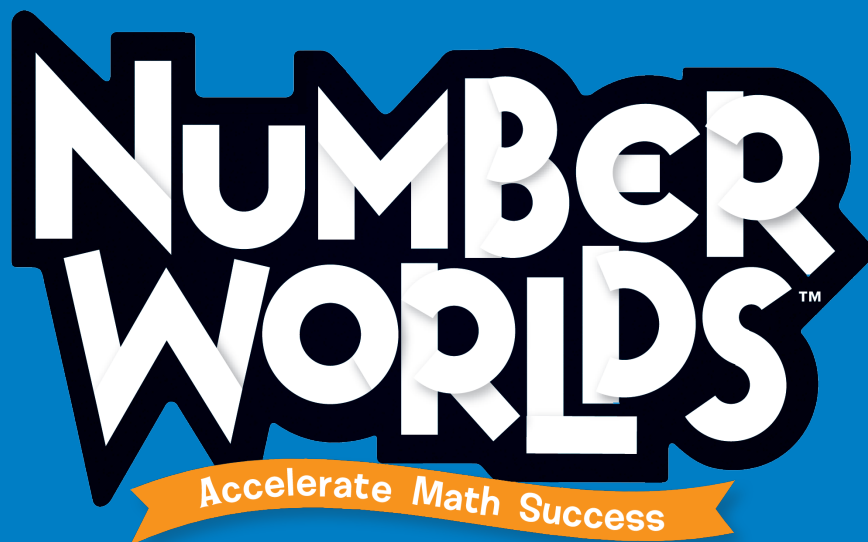
## Reflect

If a city had a population of 1,745,012, between which two cities in the table would it be listed?

\_\_\_\_\_

If a city had a population of 578,231, where would it be in the table?

\_\_\_\_\_



# Student Workbook

**Engage with your  
mathematics program!**

**PLAY** interactive online games and activities.

**SOLVE** complex math problems with digital math tools.

**COLLABORATE** with classmates in project-based learning.