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LESSON

1

Place Value

Numbers have digits. The value of each digit depends on its place in that number. This is called its **place value**.

Thousands	Hundreds	Tens	Ones
7	6	5	4

This place-value chart shows the number 7,654, or seven thousand, six hundred fifty-four.

The 7 is in the thousands place. Its value is 7,000. The 6 is in the hundreds place. Its value is 600. The 5 is in the tens place. Its value is 50. The 4 is in the ones place. Its value is 4.

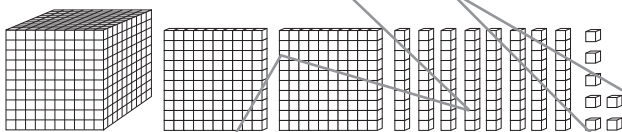
To read and write **whole numbers**, you can use different forms.

Standard form: 1,287

Word form: one thousand, two hundred eighty-seven

Expanded form: $1,000 + 200 + 80 + 7$

Model:



Whole numbers are used to count.

The place with the greatest value is always on the left.

The value of each place is 10 times the value of the place to the right.

$$1 \text{ ten} = 10 \text{ ones}$$

$$1 \text{ hundred} = 10 \text{ tens}$$

$$1 \text{ thousand} = 10 \text{ hundreds}$$

A number written in words has commas in the same places as the number written in standard form.

2,100

two thousand, one hundred

To write a number in expanded form, think of it as the sum of its places.

GUIDED PRACTICE

Read and solve each problem.

1 In which number does the digit 7 have a value of 700?

- A 1,870
- B 7,912
- C 4,327
- D 2,798

Which place is the hundreds place? Look for a number with a 7 in that place.

2 A flight from New York City to Paris, France, travels about 3,636 miles. What is this distance written in word form?

- A three hundred thirty-six
- B three thousand, six hundred thirty
- C three thousand, six hundred thirty-six
- D three thousand, three hundred sixty-six

Think about the value of each digit. Write it using words.

3 The Chrysler Building in New York City is 1,046 feet high to the tip. Write this height in expanded form.

Answer _____

If there is a 0 in a place, do not write that place in expanded form.

4 Witney earned 6,935 points in a video game. What is the value of each digit in this number?

- 6 = _____
- 9 = _____
- 3 = _____
- 5 = _____

Think about the place value of each digit. Write that value.

TEST YOURSELF

Read and solve each problem.

- What is the value of the 4 in 4,728?
A 4,000
B 400
C 40
D 4
- What is the expanded form of 8,903?
A $800 + 900 + 3$
B $8,000 + 900 + 3$
C $8,000 + 90 + 3$
D $8,000 + 900 + 30$
- The population of Lake Placid, NY, is 2,414.
What is this number written in word form?
A two four one four
B two hundred, four fourteen
C two thousand, four fourteen
D two thousand, four hundred fourteen
- What is the standard form of one thousand, five hundred eight?
A 158
B 1,058
C 1,508
D 1,580
- Charles saw a list of 6,256 cities in New York State. What is the value of the 5 in 6,256?
A 5
B 50
C 500
D 5,000
- Which number has 6 hundreds and 2 ones?
A 8,361
B 1,602
C 7,620
D 6,238
- What is this number written in standard form and word form?
 $9,000 + 70 + 4$

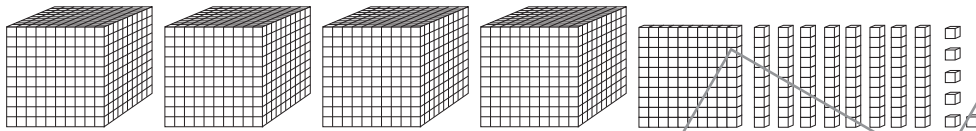
Standard form _____

Word form _____

8 What is the value of the 2 in 3,297?

Answer _____

9 What number do these place-value blocks show? Write the number in standard form.



Answer _____

10 The Manhattan Bridge in New York City is 6,850 feet long. Write this number in expanded form.

Answer _____

11 Mr. Harker's class collected 2,893 pounds of food to donate to a food bank. Mrs. Santos's class collected 3,298 pounds of food to donate.

Part A Which digit in the two numbers has the same value? Explain.

Part B Write the word forms for 2,893 and 3,298.

