

LESSON 1

SESSION 1 ● ○ ○

Explore Place Value

What exactly does place value mean?



MODEL IT

Complete the statements below.

- 1 You can use place-value charts to understand greater numbers. Place value is the value of a digit based on its position in a number. You have seen place-value charts for numbers up to 999. Look at the chart showing 11,111.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	1	1	1	1	1

Describe how each place is related to the place next to it.

- 10 ones is 1
- 10 tens is 1
- 10 hundreds is 1
- 10 is 1 ten thousand.

- 2 Use the number in the place-value chart to solve the problems.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
		3	3	3	3

- The 3 in the tens place has a value of
- The 3 in the tens place has a value that is times the value of the 3 in the place.



DISCUSS IT

- Do you and your partner see the same pattern in the value of the places next to each other?
- I think the value of each place is related to the one next to it because ...



Learning Targets

- Understand how the value of a digit is related to its place in a number.
- Read and write multi-digit numbers in different forms.

MODEL IT

Complete the statements below.

- 3 Numbers with more than three digits have a comma to separate groups of three digits. Digits in groups of three places are called **periods**.

Thousands Period			Ones Period		
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
4	6	7	8	8	2

Write the number shown above in **standard form** (the way you usually see it).

.....

- 4 Use expanded form and word form to understand greater numbers.

- a. To say or write the **word form** of a number, you read each group of three digits followed by the period name. You do not say the period name for the ones period.

The word form for the number you wrote in problem 3 is:

four hundred sixty-seven

.....

- b. Expanded form is a way to write a number to show the value of each digit. Complete the expanded form below for the number in the place-value chart above.

.....00,000 + ...0,000 + ...000 + ...00 + ...0 + ...



DISCUSS IT

- How did you and your partner decide how to complete the word form and expanded form of the number?
- A place-value chart helps you read numbers because ...

5 REFLECT

How are the standard form, word form, and expanded form of a number alike and different?

.....

.....

Solve.

- 3 Numbers with more than three digits have a comma to separate groups of three digits. Digits in groups of three places are called periods.

Thousands Period			Ones Period		
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
2	8	4	3	7	1

Write the number shown above in standard form (the way you usually see it).

...../

- 4 Use expanded form and word form to understand greater numbers.
- a. To say or write the word form of a number, you read each group of three digits followed by the period name. You do not say the period name for the ones period.

Complete the word form for the number you wrote in problem 3.

two hundred eighty-four

- b. Expanded form is a way to write a number to show the place value of each digit. Complete the expanded form below for the number in the place-value chart above.

.....00,000 + ...0,000 + ... ,000 + ...00 + ... 0 + ...