

Develop Understanding of Place Value

MODEL IT: PLACE-VALUE CHARTS

Try these two problems.

- 1 Use a place-value chart to think about greater numbers.

a. Write the number 25,049 in the place-value chart.

Thousands Period			Ones Period		
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

b. Write the value of each digit

2:

4:

5:

9:

0:

- 2 Think about how the values of the digits change from problem 1.

a. Write the number 250,490 in the place-value chart.

Thousands Period			Ones Period		
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

b. Write the value of each digit.

2:

4:

5:

9:

0:

0:



DISCUSS IT

- Describe how the values of the digits 2, 5, 0, 4, and 9 in problem 2 compare to their values in problem 1.
- I think a place-value chart helps you understand numbers because ...

MODEL IT: EXPANDED FORM

Use expanded form to understand place value.

- 3 Complete to show the expanded form of 25,049.

$$25,049 = \dots\dots \text{ten thousands} + \dots\dots \text{thousands} + \dots\dots \text{hundreds} + \\ \dots\dots \text{tens} + \dots\dots \text{ones}$$

- 4 Complete to show different ways you can expand and show 25,049.

$$25,049 = \dots\dots \text{thousands} + \dots\dots \text{hundreds} + \dots\dots \text{tens} + \dots\dots \text{ones}$$

$$25,049 = \dots\dots \text{thousands} + \dots\dots \text{ones}$$

$$25,049 = \dots\dots\dots \text{ones}$$



DISCUSS IT

- How does each of the ways in problem 4 show 25,049?
- I think you can represent numbers in different ways because . . .

CONNECT IT

Complete the problems below.

- 5 What do the expanded form and a place-value chart tell you about a number such as 25,049? How are they alike and different?

- 6 Complete the expanded form of each number. Think about the value of each digit to help you.

a. $40,389 = 40,000 + 300 + \dots\dots + \dots\dots$

b. $682,902 = \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \\ \dots\dots\dots + \dots\dots$