

Place Value Power

See how a digit's value changes from place to place.

GRADE 4 • NY-4.NBT.1

NY-4.NBT.1 "Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right."

NAME _____

DATE _____

ONE PLACE LEFT

Each place to the left is worth 10 times as much as the place to its right. When the same digit appears in nearby places, compare the values, not just the digit.

WORKED EXAMPLE

In 444,000, compare the value of the 4 in the hundred-thousands place with the value of the 4 in the ten-thousands place.

1. The 4 in the hundred-thousands place has a value of 400,000.
2. The 4 in the ten-thousands place has a value of 40,000.
3. $400,000 / 40,000 = 10$.

Answer: 400,000 is 10 times 40,000.

PRACTICE 6 problems

- 1** In 88,321, find the value of each 8.
Complete the sentence: ____ is 10 times ____.

ANSWER _____

- 2** In 55,706, the 5 in the thousands place has a value of _____. It is one-tenth the value of the 5 in the _____ place.

ANSWER _____

- 3** In 77,418, the 7 in the ten-thousands place represents 10 times as much as the 7 in which place?

ANSWER _____

- 4** In 222,468, how many times as much is the value of the 2 in the hundred-thousands place as the value of the 2 in the thousands place?

ANSWER _____

- 5** Write the number with 6 in the ten-thousands place, 6 in the thousands place, 1 in the hundreds place, 0 in the tens place, and 6 in the ones place. Then tell how the values of the first two 6s are related.

ANSWER _____

- 6** Mira says, "In 93,399, the 3 in the thousands place is 10 times the value of the 3 in the hundreds place." Is Mira correct? Explain with the two values.

ANSWER _____

APPLY IT

Show your work

- 1** The school gaming club's scoreboard shows 66,450 points for one team. What is the value of each 6? How are the two values related?

WORK SPACE

ANSWER _____

- 2** A music video has 505,500 views. Compare the value of the 5 in the thousands place with the value of the 5 in the hundreds place.

WORK SPACE

ANSWER _____

CHALLENGE

One step up

Can the same digit in a five-digit number be worth 100 times as much as another same digit? Write a five-digit number with exactly two 7s that proves your answer. Explain using the values of the 7s.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	In 88,321, find the value of each 8. Complete the sentence: ____ is 10 times ____.	80,000; 8,000. 80,000 is 10 times 8,000.
2	In 55,706, the 5 in the thousands place has a value of _____. It is one-tenth the value of the 5 in the _____ place.	5,000; ten-thousands
3	In 77,418, the 7 in the ten-thousands place represents 10 times as much as the 7 in which place?	thousands place
4	In 222,468, how many times as much is the value of the 2 in the hundred-thousands place as the value of the 2 in the thousands place?	100 times
5	Write the number with 6 in the ten-thousands place, 6 in the thousands place, 1 in the hundreds place, 0 in the tens place, and 6 in the ones place. Then tell how the values of the first two 6s are related.	66,106; 60,000 is 10 times 6,000.
6	Mira says, "In 93,399, the 3 in the thousands place is 10 times the value of the 3 in the hundreds place." Is Mira correct? Explain with the two values.	Yes. The values are 3,000 and 300, and 3,000 is 10 times 300.

PART 2 • APPLY IT

1. **The 6 in the ten-thousands place is 60,000. The 6 in the thousands place is 6,000. 60,000 is 10 times 6,000.** Identify each 6 by its place. The ten-thousands value is 10 times the thousands value.
2. **The 5 in the thousands place is worth 5,000, and the 5 in the hundreds place is worth 500. 5,000 is 10 times 500.** The two 5s are in neighboring places. Moving one place left makes the value 10 times greater.

CHALLENGE

Yes. Sample answer: 70,700. The 7 in the ten-thousands place is worth 70,000, and the 7 in the hundreds place is worth 700. 70,000 is 100 times 700.

Accept equivalent wording such as "ten thousand place" for "ten-thousands place." For the challenge, accept any correct five-digit number with exactly two 7s whose values differ by a factor of 100, with a correct explanation.