LESSON MAKER PRO

Place Value Power

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

GRADE 5 · 5.NR.1.1

5.NR.1.1 "Explain that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left."

NAME _____ DATE _____

THE PLACE VALUE RULE

A digit's value depends on its place in a number. When the same digit moves one place left, its value becomes 10 times as much. When it moves one place right, its value becomes 1/10 as much.

WORKED EXAMPLE

In 66,600, compare the 6 in the thousands place with the 6 in the hundreds place.

1. The 6 in the thousands place has a value of 6,000.
2. The 6 in the hundreds place has a value of 600.
3. Moving one place left changes 600 to 6,000.

Answer: The 6 in the thousands place represents 10 times as much as the 6 in the hundreds place.

PRACTICE 6 problems

1 Look at 4,444. Compare the 4 in the thousands place with the 4 in the hundreds place.

ANSWER _____

2 In 77,721, what is the value of the 7 immediately to the right of the 7 worth 7,000?

ANSWER _____

3 Complete the statement: 20,000 is ___ times as much as 2,000.

ANSWER _____

4 In 89,999, which place has a 9 worth 90?

ANSWER _____

5 True or false: In 933,210, the 3 in the thousands place represents 1/10 as much as the 3 in the ten-thousands place.

ANSWER _____

6 In 511,806, the 1 in the ten-thousands place is how many times as much as the 1 in the thousands place?

ANSWER _____

APPLY IT Show your work

1 Maya's game scoreboard shows 44,442 points. What are the values of the 4 in the thousands place and the 4 in the hundreds place? How do the values compare?

WORK SPACE

ANSWER _____

2 A school science video has 266,245 views. Compare the 6 in the ten-thousands place with the 6 in the thousands place.

WORK SPACE

ANSWER _____

CHALLENGE One step up

In 299,912, three 9s are in consecutive places. Write the value of each 9. Then explain how the values are related.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Power

GRADE 5 · 5.NR.1.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Look at 4,444. Compare the 4 in the thousands place with the 4 in the hundreds place.	**4,000 is 10 times as much as 400.**
2	In 77,721, what is the value of the 7 immediately to the right of the 7 worth 7,000?	**700**
3	Complete the statement: 20,000 is ___ times as much as 2,000.	**10**
4	In 89,999, which place has a 9 worth 90?	**the tens place**
5	True or false: In 933,210, the 3 in the thousands place represents 1/10 as much as the 3 in the ten-thousands place.	**True**
6	In 511,806, the 1 in the ten-thousands place is how many times as much as the 1 in the thousands place?	**10 times as much**

PART 2 · APPLY IT

1. **The values are 4,000 and 400. The 4 in the thousands place represents 10 times as much as the 4 in the hundreds place.** The thousands-place 4 has a value of 4,000, and the hundreds-place 4 has a value of 400. Since 4,000 is 10 times 400, the first 4 represents 10 times as much.
2. **The values are 60,000 and 6,000. The 6 in the thousands place represents 1/10 as much as the 6 in the ten-thousands place.** The ten-thousands-place 6 is worth 60,000, and the thousands-place 6 is worth 6,000. Moving one place right makes the value 1/10 as much.

CHALLENGE

The values are 90,000, 9,000, and 900. Each 9 to the left represents 10 times as much as the 9 immediately to its right.

Accept equivalent wording such as "10 times greater in value" when the comparison is correct. For the challenge, students should list all three values and state the 10-times relationship between adjacent places.