LESSON MAKER PRO

Place Value Power

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

GRADE 5 · 5.NBT.A.1

CCSS.Math.Content.5.NBT.A.1 "Recognize 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 BIG IDEA

In a multi-digit number, moving one place left makes a digit's value 10 times greater. Moving one place right makes a digit's value 1/10 as great.

WORKED EXAMPLE

In 7,770, compare the 7 in the thousands place with the 7 in the hundreds place.

1. The 7 in the thousands place has a value of 7,000.
2. The 7 in the hundreds place has a value of 700.
3. 7,000 = 10 x 700.

Answer: The 7 in the thousands place is 10 times as much as the 7 in the hundreds place.

PRACTICE 6 problems

1 In 55,432, compare the 5 in the ten-thousands place with the 5 in the thousands place.

ANSWER _____

2 In 28,282, how does the 8 in the thousands place compare with the 8 in the tens place?

ANSWER _____

3 Complete the equation: 900 = x times 90

ANSWER _____

4 Complete the sentence: 6,000 is 1/___ of 60,000.

ANSWER _____

5 In 41,144, the 1 in the thousands place has what value? How does it compare with the 1 in the hundreds place?

ANSWER _____

6 A digit has a value of 30 in the tens place. What value would that digit have one place to the left?

ANSWER _____

APPLY IT Show your work

1 A school esports club's livestream got 44,400 views. How does the value of the 4 in the ten-thousands place compare with the value of the 4 in the thousands place?

WORK SPACE

ANSWER _____

2 In a video game, Kai earned 36,360 coins. How does the value of the 3 in the ten-thousands place compare with the value of the 3 in the hundreds place?

WORK SPACE

ANSWER _____

CHALLENGE One step up

In 808,080, list the values of the 8s from left to right. Then tell how the first 8 compares with the middle 8 and how the middle 8 compares with the last 8.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Power

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	In 55,432, compare the 5 in the ten-thousands place with the 5 in the thousands place.	**50,000 is 10 times 5,000.**
2	In 28,282, how does the 8 in the thousands place compare with the 8 in the tens place?	**8,000 is 100 times 80.**
3	Complete the equation: 900 = x times 90	**x = 10**
4	Complete the sentence: 6,000 is 1/___ of 60,000.	**10**
5	In 41,144, the 1 in the thousands place has what value? How does it compare with the 1 in the hundreds place?	**The value is 1,000. It is 10 times 100.**
6	A digit has a value of 30 in the tens place. What value would that digit have one place to the left?	**300**

PART 2 · APPLY IT

1. **40,000 is 10 times 4,000.** The 4 in the ten-thousands place has a value of 40,000. The 4 in the thousands place has a value of 4,000.
2. **30,000 is 100 times 300.** The two 3s are two places apart. Moving two places left makes the value 10 x 10, or 100, times as much.

CHALLENGE

800,000; 8,000; 80. The first 8 is 100 times the middle 8, and the middle 8 is 100 times the last 8.

Accept equivalent comparison statements, such as "10 times as much" or "1/10 as much," when they match the places named. For the challenge, students may explain that each pair of 8s is two places apart, so the value changes by a factor of 100.