LESSON MAKER PRO

Place Value Power

Track how a digit's value changes as it moves.

GRADE 4 · 4.NR.1.2

4.NR.1.2 "Recognize and show that a digit in one place has a value ten times greater than what it represents in the place to its right and extend this understanding to determine the value of a digit when it is shifted to the left or right..."

NAME _____ DATE _____

MOVE, MULTIPLY, DIVIDE

When a digit moves one place to the left, its value becomes 10 times greater. When a digit moves one place to the right, its value is divided by 10. Each place you move changes the value by another factor of 10.

WORKED EXAMPLE

In 6,000, what happens to the value of 6 when it shifts one place right to make 600?

1. In 6,000, the 6 has a value of 6,000.
2. Moving one place right means divide by 10.
3. 6,000 / 10 = 600.

Answer: The value of 6 becomes 600.

PRACTICE 6 problems

1 What is the value of the 7 in 7,432? What is the value of the 7 in 743?

ANSWER _____

2 In 58,219, the 8 has a value of 8,000. If the 8 shifts one place left, what is its new value?

ANSWER _____

3 In 34,560, the 4 shifts two places right. What is the new value of the 4?

ANSWER _____

4 A digit has a value of 900. It shifts one place left. What is its new value?

ANSWER _____

5 Compare the value of the 5 in 5,418 and the value of the 5 in 51,840.

ANSWER _____

6 In 3,706, the 3 shifts two places right. What is its new value? What operation did you use?

ANSWER _____

APPLY IT Show your work

1 The robotics club recorded 28,450 points at a competition. The 8 has a value of 8,000. On a place-value display, the 8 moves one place left. What is the new value of the 8? How does it compare to its first value?

WORK SPACE

ANSWER _____

2 A coding game displays the score 32,681. The digit 2 is moved two places right on a place-value chart. What is the new value of the 2?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A digit has a value of 70,000. It shifts right until its value is 70. How many places did it shift? Show the division steps.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Power

GRADE 4 · 4.NR.1.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the value of the 7 in 7,432? What is the value of the 7 in 743?	**7,000 and 700**
2	In 58,219, the 8 has a value of 8,000. If the 8 shifts one place left, what is its new value?	**80,000**
3	In 34,560, the 4 shifts two places right. What is the new value of the 4?	**40**
4	A digit has a value of 900. It shifts one place left. What is its new value?	**9,000**
5	Compare the value of the 5 in 5,418 and the value of the 5 in 51,840.	**5,000 and 50,000; 50,000 is 10 times greater than 5,000.**
6	In 3,706, the 3 shifts two places right. What is its new value? What operation did you use?	**30; divide by 100**

PART 2 · APPLY IT

1. **80,000; it is 10 times greater.** The 8 starts in the thousands place, so its value is 8,000. Moving one place left multiplies its value by 10: 8,000 x 10 = 80,000.
2. **20** The 2 has a value of 2,000. Moving two places right means divide by 10 twice: 2,000 / 10 / 10 = 20.

CHALLENGE

3 places right; 70,000 / 10 = 7,000, 7,000 / 10 = 700, 700 / 10 = 70.

Accept correct multiplication or division statements that show the factor of 10 for each place moved. Accept answers with or without commas when the place value is correct.