LESSON MAKER PRO

Place Value Power

Use digit values to solve number problems.

GRADE 5 · 5.NR.1

5.NR.1 "Use place value understanding to solve real-life, mathematical problems."

NAME _____ DATE _____

PLACE VALUE MOVES

Each place to the left is worth 10 times as much as the place to its right. When you multiply by 10, 100, or 1,000, move digits left. When you divide, move digits right, using zeros as placeholders when needed.

WORKED EXAMPLE

Find 4.208 x 10.

1. Multiplying by 10 moves each digit one place left.
2. 4.208 becomes 42.08.

Answer: 42.08

PRACTICE 6 problems

1 What is the value of the 7 in 72.09?

ANSWER _____

2 Find 8.34 x 100.

ANSWER _____

3 Find 5,600 / 100.

ANSWER _____

4 Which number is greater: 65.8 or 65.08?

ANSWER _____

5 Find 0.47 x 1,000.

ANSWER _____

6 Write 9.006 in expanded form.

ANSWER _____

APPLY IT Show your work

1 A gaming club sets up 6 tables. Each table has 1,000 game cards. How many game cards are there altogether?

WORK SPACE

ANSWER _____

2 A student uploads 100 short video files. Each file is 0.83 megabytes. How many megabytes are uploaded?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A number is multiplied by 1,000 and then divided by 100. The result is 43,700. What number did you start with? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY

Place Value Power

GRADE 5 · 5.NR.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the value of the 7 in 72.09?	**70**
2	Find 8.34 x 100.	**834**
3	Find 5,600 / 100.	**56**
4	Which number is greater: 65.8 or 65.08?	**65.8**
5	Find 0.47 x 1,000.	**470**
6	Write 9.006 in expanded form.	**9 + 0.006**

PART 2 · APPLY IT

1. **6,000 game cards** Multiply 6 by 1,000. The 6 moves three places left, so there are 6,000 game cards.
2. **83 megabytes** Multiply 0.83 by 100. The digits move two places left, giving 83 megabytes.

CHALLENGE

4,370. Multiplying by 1,000 and then dividing by 100 is the same as multiplying by 10, so 4,370 x 10 = 43,700.

Accept 9 + 0.006 or 9 ones and 6 thousandths for the expanded-form item. For the challenge, accept any correct explanation that shows the overall change is multiplying by 10.