LESSON MAKER PRO

Decimal Place Power

Write decimals in standard and expanded form through thousandths.

GRADE 5 · 5.NR.4.1

5.NR.4.1 "Read and write decimal numbers to the thousandths place using base-ten numerals written in standard form and expanded form."

NAME _____ DATE _____

BUILD EACH DECIMAL

Digits to the right of the decimal point name tenths, hundredths, and thousandths. In expanded form, write the value of each nonzero digit, and use zeros in standard form to keep digits in the correct places.

WORKED EXAMPLE

Write 8.245 in expanded form.

1. 8 is in the ones place.
2. 2 tenths is 0.2.
3. 4 hundredths is 0.04, and 5 thousandths is 0.005.
4. Add the value of each nonzero place.

Answer: 8 + 0.2 + 0.04 + 0.005

PRACTICE 6 problems

1 Write 4.572 in expanded form.

ANSWER _____

2 Write 7 + 0.06 + 0.009 in standard form.

ANSWER _____

3 Write 0.824 in expanded form.

ANSWER _____

4 Write 12 + 0.5 + 0.003 in standard form.

ANSWER _____

5 Write nine and forty-six thousandths in standard form, then write it in expanded form.

ANSWER _____

_____

6 Write 3.072 in expanded form.

ANSWER _____

APPLY IT Show your work

1 At a robot race, Maya's robot traveled 2.731 meters. Write this distance in expanded form.

WORK SPACE

ANSWER _____

2 A game download used six and five thousandths gigabytes of storage. Write the amount in standard form and expanded form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A water tank holds 6.507 liters. Write the number in expanded form. Then explain why the 0 in the hundredths place matters.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Place Power

GRADE 5 · 5.NR.4.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 4.572 in expanded form.	**4 + 0.5 + 0.07 + 0.002**
2	Write 7 + 0.06 + 0.009 in standard form.	**7.069**
3	Write 0.824 in expanded form.	**0.8 + 0.02 + 0.004**
4	Write 12 + 0.5 + 0.003 in standard form.	**12.503**
5	Write nine and forty-six thousandths in standard form, then write it in expanded form.	**9.046; 9 + 0.04 + 0.006**
6	Write 3.072 in expanded form.	**3 + 0.07 + 0.002**

PART 2 · APPLY IT

1. **2 + 0.7 + 0.03 + 0.001** The 7 is in the tenths place, the 3 is in the hundredths place, and the 1 is in the thousandths place.
2. **6.005; 6 + 0.005** Five thousandths is 0.005, so zeros are needed in the tenths and hundredths places.

CHALLENGE

6 + 0.5 + 0.007. The 0 holds the hundredths place, so the 7 stays in the thousandths place.

Accept equivalent expanded forms that include zero-value terms, such as 7 + 0.06 + 0 + 0.009. Require zeros in standard form when they are needed to show place value.