LESSON MAKER PRO

Decimal Digit Detectives

Find each digit's place and value through thousandths.

GRADE 4 · 4.NS.4.d

4.NS.4.d "Identify and communicate, both orally and in written form, the place and value of each digit in a decimal through thousandths (e.g., given 0.385, the 8 is in the hundredths place and has a value of 0.08)."

NAME _____ DATE _____

READ THE DECIMAL PLACES

Start at the decimal point. The first digit to the right is in the tenths place, the next is in the hundredths place, and the third is in the thousandths place. A digit's value depends on both the digit and its place.

WORKED EXAMPLE

In 6.247, name the place and value of the digit 4.

1. The digit 4 is the second digit to the right of the decimal point.
2. The second digit to the right is in the hundredths place.
3. 4 hundredths has a value of 0.04.

Answer: The 4 is in the hundredths place and has a value of 0.04.

PRACTICE 6 problems

1 In 4.581, name the place and value of the digit 8.

ANSWER _____

2 In 9.145, name the place and value of the digit 5.

ANSWER _____

3 In 0.914, name the place and value of the digit 1.

ANSWER _____

4 In 8.409, name the place and value of the digit 4.

ANSWER _____

5 In 5.018, name the place and value of the digit 8.

ANSWER _____

6 In 1.590, name the place and value of the digit 9.

ANSWER _____

APPLY IT Show your work

1 Maya ran 0.458 kilometer during a fitness challenge. What place is the digit 5 in? What is its value?

WORK SPACE

ANSWER _____

2 A water bottle holds 1.804 liters. What place is the digit 8 in? What is its value?

WORK SPACE

ANSWER _____

CHALLENGE One step up

In 8.808, the digit 8 appears three times. Name the place and value of each 8.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Digit Detectives

GRADE 4 · 4.NS.4.d

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	In 4.581, name the place and value of the digit 8.	**The 8 is in the hundredths place and has a value of 0.08.**
2	In 9.145, name the place and value of the digit 5.	**The 5 is in the thousandths place and has a value of 0.005.**
3	In 0.914, name the place and value of the digit 1.	**The 1 is in the hundredths place and has a value of 0.01.**
4	In 8.409, name the place and value of the digit 4.	**The 4 is in the tenths place and has a value of 0.4.**
5	In 5.018, name the place and value of the digit 8.	**The 8 is in the thousandths place and has a value of 0.008.**
6	In 1.590, name the place and value of the digit 9.	**The 9 is in the hundredths place and has a value of 0.09.**

PART 2 · APPLY IT

1. **The 5 is in the hundredths place and has a value of 0.05.** In 0.458, the 5 is the second digit to the right of the decimal point. The second place is hundredths, so its value is 0.05.
2. **The 8 is in the tenths place and has a value of 0.8.** In 1.804, the 8 is the first digit to the right of the decimal point. The first place is tenths, so its value is 0.8.

CHALLENGE

The first 8 is in the ones place and has a value of 8. The second 8 is in the tenths place and has a value of 0.8. The third 8 is in the thousandths place and has a value of 0.008.

Accept equivalent decimal forms with trailing zeroes, such as 0.80 for 0.8. Students should name both the correct place and the correct value.