LESSON MAKER PRO

Decimal Detective

Use models, place value, and words to read and write decimals.

GRADE 4 · 4.NS.4.c

4.NS.4.c "Read and write decimals expressed through thousandths, using concrete, pictorial, and numerical representations."

NAME _____ DATE _____

PLACE VALUE TO THOUSANDTHS

A decimal point separates whole ones from parts of one. To write a decimal through thousandths, use the places for tenths, hundredths, and thousandths, even when one place has a 0.

WORKED EXAMPLE

Write eight and three hundred five thousandths as a decimal.

1. Write 8 in the ones place.
2. Write 3 in tenths, 0 in hundredths, and 5 in thousandths.
3. Place the decimal point between the ones and tenths places: 8.305.

Answer: 8.305

PRACTICE 6 problems

1 Write six and forty-two thousandths as a decimal.

ANSWER _____

2 Write 3.507 in word form.

ANSWER _____

3 A 1,000-square picture has 249 squares shaded. Write the shaded amount as a decimal.

ANSWER _____

4 One whole base-ten cube has 1,000 little cubes. A model has 718 little cubes colored. Write the colored amount as a decimal.

ANSWER _____

5 Write the decimal with 9 ones, 0 tenths, 6 hundredths, and 3 thousandths.

ANSWER _____

6 Write the decimal with 4 tenths, 0 hundredths, and 0 thousandths.

ANSWER _____

APPLY IT Show your work

1 A digital pet's energy meter is divided into 1,000 equal parts. The meter shows 684 parts filled. What decimal shows the pet's energy?

WORK SPACE

ANSWER _____

2 Lena ran 2 whole laps and 37 thousandths of another lap in a virtual race. Write her total number of laps in word form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Noah says that 5 ones, 2 tenths, and 8 thousandths makes 5.28. Is Noah correct? Write the correct decimal and explain why a zero is needed.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Detective

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write six and forty-two thousandths as a decimal.	**6.042**
2	Write 3.507 in word form.	**three and five hundred seven thousandths**
3	A 1,000-square picture has 249 squares shaded. Write the shaded amount as a decimal.	**0.249**
4	One whole base-ten cube has 1,000 little cubes. A model has 718 little cubes colored. Write the colored amount as a decimal.	**0.718**
5	Write the decimal with 9 ones, 0 tenths, 6 hundredths, and 3 thousandths.	**9.063**
6	Write the decimal with 4 tenths, 0 hundredths, and 0 thousandths.	**0.400**

PART 2 · APPLY IT

1. **0.684** Because 684 of 1,000 equal parts are filled, write 684 in the thousandths places: 0.684.
2. **two and thirty-seven thousandths** Write the amount as 2.037, then read 037 as thirty-seven thousandths.

CHALLENGE

No. The correct decimal is 5.208. A 0 is needed in the hundredths place so that 8 stays in the thousandths place.

Accept equivalent decimal forms when the value is unchanged, such as 0.4 for 0.400, unless the item specifically names each place. Accept correctly spelled word forms with or without hyphens in compound number words.