LESSON MAKER PRO

Decimal Detectives

Read, write, and compare decimals to thousandths.

GRADE 5 · 5.NBT.A.3

CCSS.Math.Content.5.NBT.A.3 "Read, write, and compare decimals to thousandths."

NAME _____ DATE _____

PLACE VALUE CLUES

Each digit to the right of the decimal point has a place value: tenths, hundredths, then thousandths. To compare decimals, line up the decimal points and compare digits from left to right. You can add zeros to the end of a decimal without changing its value.

WORKED EXAMPLE

Compare 6.407 and 6.47.

1. Write 6.47 as 6.470 so both decimals have three places.
2. The ones digits and tenths digits are the same.
3. At the hundredths place, 0 is less than 7.
4. So 6.407 is less than 6.470.

Answer: 6.407 < 6.47

PRACTICE 6 problems

1 Write 0.305 in word form.

ANSWER _____

2 Write eight and forty-two thousandths in standard form.

ANSWER _____

3 Write 12.609 in expanded form.

ANSWER _____

4 Compare: 4.718 ___ 4.781

ANSWER _____

5 Write 15.070 in word form.

ANSWER _____

6 Order from least to greatest: 2.156, 2.165, 2.105

ANSWER _____

APPLY IT Show your work

1 In a racing game, Miles finished in 2.391 minutes. Noor finished in 2.319 minutes. Who finished first? Write a comparison to show your answer.

WORK SPACE

ANSWER _____

2 For a podcast project, Eli recorded a sound clip that was 0.875 minute long. Write the length in word form and in expanded form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Order 3.500, 3.505, and 3.55 from least to greatest. Then explain why 3.500 and 3.5 have the same value.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Detectives

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write 0.305 in word form.	**zero and three hundred five thousandths**
2	Write eight and forty-two thousandths in standard form.	**8.042**
3	Write 12.609 in expanded form.	**10 + 2 + 0.6 + 0.009**
4	Compare: 4.718 ___ 4.781	**4.718 < 4.781**
5	Write 15.070 in word form.	**fifteen and seventy thousandths**
6	Order from least to greatest: 2.156, 2.165, 2.105	**2.105, 2.156, 2.165**

PART 2 · APPLY IT

1. **Noor finished first. 2.319 < 2.391.** A shorter time means finishing first. Compare the hundredths digits: 1 is less than 9.
2. **zero and eight hundred seventy-five thousandths; 0.8 + 0.07 + 0.005** Read the digits after the decimal as 875 thousandths. Each nonzero digit shows its place-value amount in expanded form.

CHALLENGE

3.500 < 3.505 < 3.55. The zeros at the end of 3.500 do not change its value, so 3.500 = 3.5.

Accept equivalent word forms that correctly name the whole number and decimal part. Accept equivalent expanded forms, including forms that show zero-value places.