LESSON MAKER PRO

Decimal Detective

Compare decimals through hundredths.

GRADE 4 · 4.NF.C.7

CCSS.Math.Content.4.NF.C.7 "Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <..."

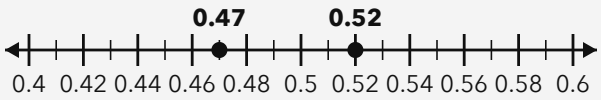
NAME _____ DATE _____

COMPARE PLACE BY PLACE

Compare decimals only when they name parts of the same whole. Line up the decimal points, then compare the whole numbers, tenths, and hundredths from left to right. You may add a zero at the end, so 0.4 = 0.40.

WORKED EXAMPLE

Compare 0.47 and 0.52. Write <, =, or >.



1. Both decimals name parts of the same whole.
2. Compare the tenths: 4 tenths is less than 5 tenths.
3. The point for 0.47 is to the left of the point for 0.52.

Answer: 0.47 < 0.52

PRACTICE 6 problems

1 Compare 0.63 and 0.58. Write <, =, or >.

ANSWER _____

2 Compare 0.09 and 0.90. Write <, =, or >.

ANSWER _____

3 Compare 0.41 and 0.41. Write <, =, or >.

ANSWER _____

4 Compare 1.25 and 1.30. Write <, =, or >.

ANSWER _____

5 Two identical bottles each hold 1 liter. One bottle has 0.76 L of juice, and the other has 0.67 L. Compare the amounts. Write a sentence that tells why.

ANSWER _____

_____

6 Nia ate 0.60 of a small pizza. Leo ate 0.45 of a larger pizza. Can you tell who ate more pizza from this information? Explain.

ANSWER _____

_____

APPLY IT Show your work

1 At skate practice, Kai drank 0.85 L from a 1.00-L bottle. Rosa drank 0.79 L from an identical 1.00-L bottle. Who drank more, and how much more did that person drink?

WORK SPACE

ANSWER _____

2 Maya colored 0.50 of a small poster. Omar colored 0.35 of a larger poster. Can you tell who colored more poster area from this information? Explain.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Four players filled the same 1.00-point game meter. Their scores were 0.80, 0.08, 0.18, and 0.8. Write the scores from least to greatest. Then name the two equal scores and explain why they are equal.

WORK SPACE AND ANSWER

ANSWER KEY # Decimal Detective

GRADE 4 · 4.NF.C.7

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Compare 0.63 and 0.58. Write <, =, or >.	**0.63 > 0.58**
2	Compare 0.09 and 0.90. Write <, =, or >.	**0.09 < 0.90**
3	Compare 0.41 and 0.41. Write <, =, or >.	**0.41 = 0.41**
4	Compare 1.25 and 1.30. Write <, =, or >.	**1.25 < 1.30**
5	Two identical bottles each hold 1 liter. One bottle has 0.76 L of juice, and the other has 0.67 L. Compare the amounts. Write a sentence that tells why.	**0.76 L > 0.67 L because 7 tenths is greater than 6 tenths.**
6	Nia ate 0.60 of a small pizza. Leo ate 0.45 of a larger pizza. Can you tell who ate more pizza from this information? Explain.	**No. Nia ate a larger fraction of a smaller pizza. Without the actual pizza sizes, either person could have eaten more, or the amounts could be equal.**

PART 2 · APPLY IT

1. **Kai drank more by 0.06 L.** The bottles are the same-size whole, so compare 0.85 and 0.79. Subtract 0.79 from 0.85 to get 0.06 L.
2. **No. Maya colored a larger fraction of a smaller poster, so the actual poster areas are needed to determine which colored area is greater.** For a small poster of 100 square units, Maya colors 50 square units. If the larger poster is 120 square units, Omar colors 42; if it is 200 square units, Omar colors 70. Both fit the givens, so either student could color more.

CHALLENGE

0.08 < 0.18 < 0.80 = 0.8. The equal scores are 0.80 and 0.8 because 0.8 is 8 tenths, which is 80 hundredths.

Accept a correctly aligned zero, such as 1.3 written as 1.30. Comparing fractions of amounts by their decimals alone requires the same-size whole. In Practice 6 and Apply 2, the larger decimal belongs to the smaller whole; accept explanations that the missing whole sizes prevent deciding the greater amount.