LESSON MAKER PRO

Decimal Detective

Compare and order decimals through thousandths.

GRADE 4 · 4.NS.4.e

4.NS.4.e "Compare using symbols (<, >, =) and/or words (greater than, less than, equal to) and order (least to greatest and greatest to least), a set of no more than four decimals expressed through thousandths, using multiple strategies (e.g...."

NAME _____ DATE _____

COMPARE PLACE VALUES

Line up the decimal points and compare digits from left to right. If the digits in one place are equal, move to the next place. You may add zeros to the right of a decimal without changing its value.

WORKED EXAMPLE

Compare 0.318 and 0.321. Write <, >, or =.

1. Line up the decimal points.
2. Both decimals have 3 tenths.
3. Compare hundredths: 1 hundredth is less than 2 hundredths.

Answer: 0.318 < 0.321

PRACTICE 6 problems

1 Write <, >, or =. 0.600 ___ 0.598

ANSWER _____

2 Write <, >, or =. 0.245 ___ 0.254

ANSWER _____

3 Write <, >, or =. 0.809 ___ 0.809

ANSWER _____

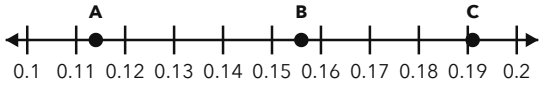
4 Order these decimals from least to greatest: 0.720, 0.702, 0.729

ANSWER _____

5 Order these decimals from greatest to least: 0.416, 0.461, 0.406, 0.460

ANSWER _____

6 Use the number line. Write the letters in order from least to greatest. Then name the place value that first separates all three decimals.



ANSWER _____

APPLY IT Show your work

1 A game design club timed how long each robot took to finish a test track. The times are in minutes. Which robot was fastest? Then order all the times from greatest to least.

ROBOT TEST TRACK TIMES

Robot	Time in minutes
A	0.873
B	0.837
C	0.880

ANSWER _____

2 Four students measured sections of a bike trail in kilometers. Jada measured 0.625 km, Leo measured 0.652 km, Noor measured 0.620 km, and Sam measured 0.605 km. Who measured the longest section? Order the four lengths from least to greatest.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Compare 0.506 and 0.560. Write <, >, or =. Then explain which place value proves your answer.

WORK SPACE AND ANSWER

ANSWER KEY

Decimal Detective

GRADE 4 · 4.NS.4.e

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write <, >, or =. 0.600 ___ 0.598	**0.600 > 0.598**
2	Write <, >, or =. 0.245 ___ 0.254	**0.245 < 0.254**
3	Write <, >, or =. 0.809 ___ 0.809	**0.809 = 0.809**
4	Order these decimals from least to greatest: 0.720, 0.702, 0.729	**0.702, 0.720, 0.729**
5	Order these decimals from greatest to least: 0.416, 0.461, 0.406, 0.460	**0.461, 0.460, 0.416, 0.406**
6	Use the number line. Write the letters in order from least to greatest. Then name the place value that first separates all three decimals.	**A, B, C; the hundredths place**

PART 2 · APPLY IT

1. **Robot B was fastest. 0.880, 0.873, 0.837** The fastest robot has the least time, so compare the tenths, hundredths, and thousandths digits. Then list the times from the greatest value to the least value.
2. **Leo measured the longest section. 0.605, 0.620, 0.625, 0.652** Compare tenths first, then hundredths, and then thousandths. Leo's length has the greatest number of hundredths among the lengths with 6 tenths.

CHALLENGE

0.506 < 0.560. Both decimals have 5 tenths. In the hundredths place, 0.506 has 0 hundredths and 0.560 has 6 hundredths, so 0.506 is less.

Accept equivalent decimals with added trailing zeros, such as 0.46 for 0.460. For written explanations, accept any correct comparison using place value, a number line, or a benchmark.