LESSON MAKER PRO

Decimal Detective

Compare decimal values through thousandths.

GRADE 5 · 5.NR.4.2

5.NR.4.2 "Represent, compare, and order decimal numbers to the thousandths place based on the meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons."

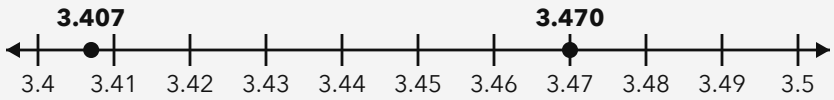
NAME _____ DATE _____

COMPARE PLACE BY PLACE

Line up the decimal points and compare the whole-number parts first. If they are equal, compare the tenths, then hundredths, then thousandths. The first place with different digits decides which number is greater. You may add zeros to the right of a decimal without changing its value.

WORKED EXAMPLE

Compare 3.407 and 3.470. Write <, >, or =.



1. Write 3.470 with three decimal places.
2. The ones digits and tenths digits match.
3. Compare the hundredths digits: 0 is less than 7.
4. Write the symbol that matches the comparison.

Answer: 3.407 < 3.470

PRACTICE 6 problems

1 Use the number line. Write <, >, or =: 0.684 ___ 0.648



ANSWER _____

2 Write <, >, or =: 4.090 ___ 4.09

ANSWER _____

3 Write <, >, or =. Then name the first place where the digits differ: 8.631 ___ 8.613

ANSWER _____

_____

4 Order these decimals from least to greatest: 2.718, 2.781, 2.708

ANSWER _____

5 Write <, >, or =: 9.999 ___ 10.000

ANSWER _____

6 Write a decimal to make the comparison true: 5.274 < ___ < 5.276

ANSWER _____

APPLY IT Show your work

1 Use the Video Clip Lengths table. Put the clips in order from shortest to longest.

VIDEO CLIP LENGTHS

Clip	Minutes
Trail Mix	1.608
Art Lab	1.638
Dance Move	1.683

ANSWER _____

2 Maya rode 5.806 kilometers on her bike. Dev rode 5.860 kilometers. Who rode farther? Write a comparison using <, >, or =.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Write one digit in the blank to make the comparison true: 6.452 < 6.4___2 < 6.472. Explain why your digit works.

WORK SPACE AND ANSWER

ANSWER KEY # Decimal Detective

GRADE 5 · 5.NR.4.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the number line. Write <, >, or =: 0.684 ___ 0.648	**0.684 > 0.648**
2	Write <, >, or =: 4.090 ___ 4.09	**4.090 = 4.09**
3	Write <, >, or =. Then name the first place where the digits differ: 8.631 ___ 8.613	**8.631 > 8.613; hundredths place**
4	Order these decimals from least to greatest: 2.718, 2.781, 2.708	**2.708, 2.718, 2.781**
5	Write <, >, or =: 9.999 ___ 10.000	**9.999 < 10.000**
6	Write a decimal to make the comparison true: 5.274 < ___ < 5.276	**5.275**

PART 2 · APPLY IT

1. **Trail Mix, Art Lab, Dance Move** Compare the tenths, hundredths, and thousandths digits. All three have 1 in the ones place and 6 in the tenths place, so compare the hundredths digits.
2. **5.806 < 5.860; Dev rode farther.** The ones and tenths digits match. At the hundredths place, 0 is less than 6, so Dev's distance is greater.

CHALLENGE

6.462. The hundredths digit must be greater than 5 and less than 7, so it must be 6.

Accept decimals with equivalent trailing zeros where appropriate. For explanations, accept clear place-value reasoning that identifies the first different digit or place.