

Decimal Place Detectives

Compare decimals by checking each place from left to right.

GRADE 5 • NY-5.NBT.3.b

NY-5.NBT.3.b "Compare two decimals to thousandths based on 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, then compare digits from left to right. First compare whole numbers, then tenths, hundredths, and thousandths. The first place with different digits tells which decimal is greater.

WORKED EXAMPLE

Compare 6.318 and 6.381. Write $>$, $<$, or $=$.

1. The whole numbers are both 6.
2. The tenths digits are both 3.
3. Compare the hundredths digits: 1 is less than 8.
4. So 6.318 is less than 6.381.

Answer: $6.318 < 6.381$

PRACTICE 6 problems

1 Write $>$, $<$, or $=$. 0.806 ____ 0.860

ANSWER _____

2 Write $>$, $<$, or $=$. 3.190 ____ 3.19

ANSWER _____

3 Write $>$, $<$, or $=$. 7.043 ____ 7.034

ANSWER _____

4 Write $>$, $<$, or $=$. 9.999 ____ 9.99

ANSWER _____

5 Write $>$, $<$, or $=$. 2.408 ____ 2.480

ANSWER _____

6 Write $>$, $<$, or $=$. 5.670 ____ 5.607

ANSWER _____

APPLY IT Show your work

- 1** At a school fun run, Jalen ran 1.275 kilometers. Priya ran 1.257 kilometers. Who ran farther? Write a comparison using the two distances.

WORK SPACE

ANSWER _____

- 2** Two gamers are downloading updates. Ava's update is 0.875 gigabytes, and Leo's update is 0.857 gigabytes. Which update is larger? Write a comparison using the two sizes.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Compare 7.709 and 7.799. Write $>$, $<$, or $=$, then explain which place-value digits prove your answer.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write $>$, $<$, or $=$. 0.806 ____ 0.860	$0.806 < 0.860$
2	Write $>$, $<$, or $=$. 3.190 ____ 3.19	$3.190 = 3.19$
3	Write $>$, $<$, or $=$. 7.043 ____ 7.034	$7.043 > 7.034$
4	Write $>$, $<$, or $=$. 9.999 ____ 9.99	$9.999 > 9.99$
5	Write $>$, $<$, or $=$. 2.408 ____ 2.480	$2.408 < 2.480$
6	Write $>$, $<$, or $=$. 5.670 ____ 5.607	$5.670 > 5.607$

PART 2 • APPLY IT

1. **Jalen ran farther. $1.275 > 1.257$** The whole numbers and tenths are equal. Compare hundredths: 7 hundredths is greater than 5 hundredths.
2. **Ava's update is larger. $0.875 > 0.857$** The tenths are equal. Compare hundredths: 7 hundredths is greater than 5 hundredths.

CHALLENGE

$7.709 < 7.799$. The tenths digits are equal, 7 tenths. Then compare the hundredths digits: 0 hundredths is less than 9 hundredths.

Accept comparisons with zeros added to the right of a decimal, such as 0.860 . For the challenge, accept any correct explanation that notes the equal tenths and compares 0 hundredths with 9 hundredths.