LESSON MAKER PRO

Number Order Detectives

Compare fractions, mixed numbers, and decimals with smart strategies.

GRADE 5 · 5.NS.1.d

5.NS.1.d "Compare (using symbols <, >, =) and order (least to greatest and greatest to least) a set of no more than four decimals and fractions (proper, improper) and/or mixed numbers using multiple strategies (e.g., benchmarks, place value..."

NAME _____ DATE _____

COMPARE WITH CONFIDENCE

To compare numbers, rewrite them in the same form when it helps. You can change fractions to decimals, add zeros to line up place values, or use benchmarks such as 0, 1/2, and 1.

WORKED EXAMPLE

Order 4/5, 0.76, and 7/10 from greatest to least.

1. Change the fractions to decimals: 4/5 = 0.80 and 7/10 = 0.70.
2. Line up the decimals: 0.80, 0.76, 0.70.
3. Compare the tenths and hundredths places.

Answer: 4/5 > 0.76 > 7/10

PRACTICE 6 problems

1 Choose <, >, or =. 0.47 ___ 1/2

ANSWER _____

2 Choose <, >, or =. 7/4 ___ 1.7

ANSWER _____

3 Order 3/8, 0.4, and 5/12 from least to greatest. Then write one comparison fact that supports your order.

ANSWER _____

_____

4 Order 1 1/5, 1.08, and 9/8 from greatest to least.

ANSWER _____

5 Choose <, >, or =. 11/10 ___ 1.10

ANSWER _____

6 Order 0.95, 11/12, 1, and 7/8 from greatest to least. Name a benchmark that helps you compare the numbers.

ANSWER _____

_____

APPLY IT Show your work

1 At a bike park, Jada rode 0.72 mile, Omar rode 3/4 mile, and Priya rode 7/10 mile. Order the ride distances from greatest to least. Whose ride was longest?

WORK SPACE

ANSWER _____

2 An esports club timed three players finishing a challenge. Kai finished in 1 3/8 minutes, Rowan finished in 1.4 minutes, and Alex finished in 13/10 minutes. Order the times from least to greatest. Who finished first?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Order 0.605, 5/8, 2/3, and 0.67 from least to greatest. Write exactly two sentences explaining how you compared the fractions and decimals.

WORK SPACE AND ANSWER

ANSWER KEY

Number Order Detectives

GRADE 5 · 5.NS.1.d

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Choose <, >, or =. 0.47 ___ 1/2	**0.47 < 1/2**
2	Choose <, >, or =. 7/4 ___ 1.7	**7/4 > 1.7**
3	Order 3/8, 0.4, and 5/12 from least to greatest. Then write one comparison fact that supports your order.	**3/8 < 0.4 < 5/12. 3/8 = 0.375, so it is less than 0.4.**
4	Order 1 1/5, 1.08, and 9/8 from greatest to least.	**1 1/5 > 9/8 > 1.08**
5	Choose <, >, or =. 11/10 ___ 1.10	**11/10 = 1.10**
6	Order 0.95, 11/12, 1, and 7/8 from greatest to least. Name a benchmark that helps you compare the numbers.	**1 > 0.95 > 11/12 > 7/8. A helpful benchmark is 1.**

PART 2 · APPLY IT

1. **3/4 > 0.72 > 7/10. Omar's ride was longest.** Change 3/4 to 0.75 and 7/10 to 0.70. Then compare 0.75, 0.72, and 0.70.
2. **13/10 < 1 3/8 < 1.4. Alex finished first.** Rewrite the times as 1.30, 1.375, and 1.40 minutes. The least time is the fastest finish.

CHALLENGE

Convert 5/8 to 0.625, and note that 2/3 lies between 0.666 and 0.667. Since 0.605 < 0.625 < 2/3 < 0.67, the order is 0.605, 5/8, 2/3, 0.67.

Accept equivalent decimal conversions and correct inequality chains. For written reasoning, accept valid use of place value, benchmark numbers, equivalent fractions, decimals, or a number line.