

Number Order Quest

Compare and order fractions, mixed numbers, and decimals.

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 SMART

Compare numbers by changing them to a form you can read easily, such as decimals with the same number of places. When you order, line up values from smallest to largest or largest to smallest. Benchmarks can also help you decide which value is bigger.

WORKED EXAMPLE

Order $\frac{3}{5}$, 0.72, and $1\frac{1}{4}$ from least to greatest.

1. Write $\frac{3}{5}$ as 0.60.
2. Write $1\frac{1}{4}$ as 1.25.
3. Compare 0.60, 0.72, and 1.25.

Answer: $\frac{3}{5} < 0.72 < 1\frac{1}{4}$

PRACTICE 6 problems

1 Compare: $\frac{7}{10}$ ____ 0.68

ANSWER _____

2 Compare: $1\frac{3}{8}$ ____ $\frac{11}{8}$

ANSWER _____

3 Order from least to greatest: 0.45, $\frac{2}{5}$, $\frac{1}{2}$, 0.405

ANSWER _____

4 Order from greatest to least: $1\frac{2}{3}$, 1.6, $\frac{5}{3}$

ANSWER _____

5 Compare: $\frac{9}{8}$ ____ 1.12

ANSWER _____

6 Order from least to greatest: $\frac{3}{4}$, 0.8, $\frac{7}{10}$, 0.78

ANSWER _____

APPLY IT Show your work

- 1** Four friends tracked their running distances during a charity game. Their distances were $\frac{4}{5}$ mile, 0.85 mile, $\frac{7}{8}$ mile, and 0.9 mile. List the distances from greatest to least. Then write one sentence telling how you compared them.

WORK SPACE

ANSWER _____

- 2** At a game design club, Pixel Pals used $1\frac{1}{5}$ GB of storage, Code Crew used 1.18 GB, and Quest Makers used $\frac{6}{5}$ GB. Order the amounts from least to greatest. Which two teams used the same amount?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Order $\frac{13}{16}$, 0.79, $\frac{4}{5}$, and 0.8125 from least to greatest. Then write one sentence telling how you know the order is correct.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Compare: $7/10$ ____ 0.68	$>$
2	Compare: $1\frac{3}{8}$ ____ $1\frac{1}{8}$	$=$
3	Order from least to greatest: 0.45 , $2/5$, $1/2$, 0.405	$2/5 < 0.405 < 0.45 < 1/2$
4	Order from greatest to least: $1\frac{2}{3}$, 1.6 , $5/3$	$1\frac{2}{3} = 5/3 > 1.6$
5	Compare: $9/8$ ____ 1.12	$>$
6	Order from least to greatest: $3/4$, 0.8 , $7/10$, 0.78	$7/10 < 3/4 < 0.78 < 0.8$

PART 2 • APPLY IT

1. **$0.9 > 7/8 > 0.85 > 4/5$. I wrote each amount as a decimal, so I could compare the tenths and hundredths.**

Change $4/5$ to 0.80 and $7/8$ to 0.875 . Compare the four decimals from greatest to least.

2. **$1.18 < 1\frac{1}{5} = 6/5$. Pixel Pals and Quest Makers used the same amount.** Both $1\frac{1}{5}$ and $6/5$ equal 1.20 .

Since 1.18 is less than 1.20 , Code Crew used the least.

CHALLENGE

$0.79 < 4/5 < 13/16 = 0.8125$. I changed $4/5$ to 0.8 and $13/16$ to 0.8125 , then compared the decimals.

Accept equivalent decimal forms, such as 0.80 for $4/5$ and 1.20 for $1\frac{1}{5}$. In ordered answers, accept either order for values that are equal if the equality is clearly shown.