

Fraction Face-Off

Compare fractions with smart strategies.

GRADE 4 • 4.NS.3

4.NS.3 "The student will use mathematical reasoning and justification to represent, compare, and order fractions (proper, improper, and mixed numbers with denominators 12 or less), with and without models..."

NAME _____

DATE _____

COMPARE FRACTION SIZES

When denominators match, the fraction with more parts is greater. When numerators match, the fraction with the smaller denominator is greater because each part is larger. You can also compare each fraction to 0, one-half, or 1.

WORKED EXAMPLE

Compare $\frac{2}{9}$ and $\frac{8}{9}$.

1. Both fractions have 9 equal parts in each whole.
2. 8 parts is more than 2 parts.
3. Place $<$ because $\frac{2}{9}$ is less than $\frac{8}{9}$.

Answer: $\frac{2}{9} < \frac{8}{9}$

PRACTICE 6 problems

1 Compare: $\frac{3}{7}$ ____ $\frac{6}{7}$

ANSWER _____

2 Compare: $\frac{4}{5}$ ____ $\frac{4}{11}$

ANSWER _____

3 Compare: $\frac{3}{10}$ ____ $\frac{4}{7}$

ANSWER _____

4 Compare: $1\frac{3}{4}$ ____ $\frac{7}{4}$

ANSWER _____

5 Write an equivalent fraction: $\frac{5}{6} = \frac{\quad}{12}$

ANSWER _____

6 Write $1\frac{1}{6}$ as a mixed number.

ANSWER _____

APPLY IT Show your work

- 1** At a gaming club, Liam drank $\frac{5}{12}$ of a bottle of water. Ava drank $\frac{3}{4}$ of a bottle of water. Who drank more? Write a comparison statement.

WORK SPACE

ANSWER _____

- 2** During a lap challenge, Nia ran $1\frac{1}{4}$ laps, Carlos ran $\frac{6}{4}$ laps, and Mei ran $1\frac{3}{4}$ laps. Order their distances from least to greatest.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Order $\frac{11}{12}$, $\frac{7}{6}$, $\frac{5}{4}$, and $\frac{4}{3}$ from least to greatest. Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Compare: $\frac{3}{7}$ ___ $\frac{6}{7}$	$\frac{3}{7} < \frac{6}{7}$
2	Compare: $\frac{4}{5}$ ___ $\frac{4}{11}$	$\frac{4}{5} > \frac{4}{11}$
3	Compare: $\frac{3}{10}$ ___ $\frac{4}{7}$	$\frac{3}{10} < \frac{4}{7}$
4	Compare: $1\frac{3}{4}$ ___ $\frac{7}{4}$	$1\frac{3}{4} = \frac{7}{4}$
5	Write an equivalent fraction: $\frac{5}{6} = \frac{\quad}{12}$	$\frac{10}{12}$
6	Write $\frac{11}{6}$ as a mixed number.	$1\frac{5}{6}$

PART 2 • APPLY IT

1. **Ava drank more. $\frac{3}{4} > \frac{5}{12}$.** Compare both fractions to one-half. Five twelfths is less than one-half, and three-fourths is greater than one-half.
2. **$1\frac{1}{4}$, $\frac{6}{4}$, $1\frac{3}{4}$** Write the mixed numbers as fourths: $1\frac{1}{4}$ is $\frac{5}{4}$, and $1\frac{3}{4}$ is $\frac{7}{4}$. Then compare $\frac{5}{4}$, $\frac{6}{4}$, and $\frac{7}{4}$.

CHALLENGE

$\frac{11}{12} < \frac{7}{6} < \frac{5}{4} < \frac{4}{3}$. In twelfths, they are $\frac{11}{12}$, $\frac{14}{12}$, $\frac{15}{12}$, and $\frac{16}{12}$, so the numerators increase.

Accept equivalent comparison explanations using benchmarks, common denominators, or fraction models. For the challenge, accept any correct equivalent fractions with a clear least-to-greatest order.