

Fraction Face-Off

Compare fractions with smart strategies.

GRADE 4 • 4.NR.4.3

4.NR.4.3 "Compare two fractions with different numerators and/or different denominators by flexibly using a variety of tools and strategies and recognize that comparisons are valid only when the two fractions refer to the same whole."

NAME _____

DATE _____

COMPARE THE SAME WHOLE

You can compare fractions only when they describe equal-size wholes. Rename both fractions with a common denominator, then compare the numerators. The fraction with the larger numerator is greater.

WORKED EXAMPLE

Compare $\frac{5}{11}$ and $\frac{7}{13}$.

1. Find a common denominator: $11 \times 13 = 143$.
2. $\frac{5}{11} = \frac{65}{143}$.
3. $\frac{7}{13} = \frac{77}{143}$.
4. Since $77 > 65$, $\frac{7}{13} > \frac{5}{11}$.

Answer: $\frac{7}{13} > \frac{5}{11}$

PRACTICE 6 problems

1 Write $>$, $<$, or $=$. $\frac{3}{4}$ ____ $\frac{5}{8}$

ANSWER _____

2 Write $>$, $<$, or $=$. $\frac{3}{5}$ ____ $\frac{2}{3}$

ANSWER _____

3 Write $>$, $<$, or $=$. $\frac{7}{10}$ ____ $\frac{2}{3}$

ANSWER _____

4 Write $>$, $<$, or $=$. $\frac{5}{12}$ ____ $\frac{4}{9}$

ANSWER _____

5 Write $>$, $<$, or $=$. $\frac{5}{6}$ ____ $\frac{7}{9}$

ANSWER _____

6 Write $>$, $<$, or $=$. $\frac{2}{5}$ ____ $\frac{4}{10}$

ANSWER _____

APPLY IT Show your work

- 1** At lunch, Kai and Noor each have an equal-size sandwich. Kai eats $\frac{2}{4}$ of a sandwich. Noor eats $\frac{3}{6}$ of a sandwich. Who eats more, or do they eat the same amount?

WORK SPACE

ANSWER _____

- 2** On equal-length race tracks in a video game, Jay completes $\frac{7}{12}$ of a track. Sol completes $\frac{5}{8}$ of a track. Who completes more of a track?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Ava eats $\frac{1}{2}$ of a small pizza. Ben eats $\frac{3}{8}$ of a large pizza. Can you use only the fractions to decide who ate more pizza? Explain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write $>$, $<$, or $=$. $\frac{3}{4}$ ____ $\frac{5}{8}$	$>$
2	Write $>$, $<$, or $=$. $\frac{3}{5}$ ____ $\frac{2}{3}$	$<$
3	Write $>$, $<$, or $=$. $\frac{7}{10}$ ____ $\frac{2}{3}$	$>$
4	Write $>$, $<$, or $=$. $\frac{5}{12}$ ____ $\frac{4}{9}$	$<$
5	Write $>$, $<$, or $=$. $\frac{5}{6}$ ____ $\frac{7}{9}$	$>$
6	Write $>$, $<$, or $=$. $\frac{2}{5}$ ____ $\frac{4}{10}$	$=$

PART 2 • APPLY IT

1. **They eat the same amount.** Rename both fractions with a denominator of 12. Kai eats $\frac{6}{12}$, and Noor eats $\frac{6}{12}$.
2. **Sol completes more of a track.** Rename both fractions with a denominator of 24. Jay completes $\frac{14}{24}$, and Sol completes $\frac{15}{24}$.

CHALLENGE

No. The pizzas are different-size wholes, so the fractions alone do not show who ate more pizza.

Accept equivalent fractions and any correct comparison strategy, such as common denominators or benchmark fractions. For the challenge, accept responses that state that the two fractions cannot be compared as amounts because the wholes are different sizes.