

Fraction Face-Off

Compare fractions that name parts of the same whole.

GRADE 4 • NY-4.NF.2

NY-4.NF.2 "Compare two fractions with different numerators and different denominators. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$..."

NAME _____

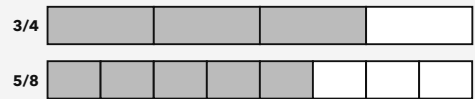
DATE _____

COMPARE FAIRLY

You can compare fractions only when they name parts of the same-size whole. Rename the fractions with a common denominator, then compare the numerators. Use $>$ for greater than, $<$ for less than, and $=$ for equal to.

WORKED EXAMPLE

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

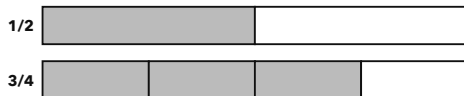


1. The bars show equal-size wholes.
2. Rename $\frac{3}{4}$ as $\frac{6}{8}$.
3. Compare $\frac{6}{8}$ and $\frac{5}{8}$. Since 6 is greater than 5, $\frac{6}{8}$ is greater than $\frac{5}{8}$.

Answer: $\frac{3}{4} > \frac{5}{8}$

PRACTICE 6 problems

- 1** Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $\frac{1}{2}$ ___ $\frac{3}{4}$



ANSWER _____

- 2** Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $\frac{2}{3}$ ___ $\frac{3}{6}$

ANSWER _____

- 3** Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $\frac{5}{6}$ ___ $\frac{7}{12}$

ANSWER _____

- 4** Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $\frac{3}{10}$ ___ $\frac{2}{5}$

ANSWER _____

- 5** Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $\frac{4}{5}$ ___ $\frac{7}{10}$

ANSWER _____

- 6** Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $\frac{5}{12}$ ___ $\frac{3}{4}$

ANSWER _____

APPLY IT Show your work

- 1** Two players are working through identical 12-level game quests. Maya has finished $\frac{2}{3}$ of her quest. Eli has finished $\frac{3}{4}$ of his quest. Who has finished more? Show a comparison using $>$, $<$, or $=$.

WORK SPACE

ANSWER _____

- 2** At robotics club, Jada completed $\frac{5}{6}$ of her coding challenge. Theo completed $\frac{3}{4}$ of an identical coding challenge. Who completed more? Show a comparison using $>$, $<$, or $=$.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Lina ate $\frac{2}{3}$ of a small pizza. Omar ate $\frac{3}{5}$ of a large pizza. Can you use $>$, $<$, or $=$ to tell who ate more pizza? Explain your reasoning.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $1/2$ ___ $3/4$	$1/2 < 3/4$; $1/2 = 2/4$, and $2/4 < 3/4$.
2	Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $2/3$ ___ $3/6$	$2/3 > 3/6$; $2/3 = 4/6$, and $4/6 > 3/6$.
3	Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $5/6$ ___ $7/12$	$5/6 > 7/12$; $5/6 = 10/12$, and $10/12 > 7/12$.
4	Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $3/10$ ___ $2/5$	$3/10 < 2/5$; $2/5 = 4/10$, and $3/10 < 4/10$.
5	Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $4/5$ ___ $7/10$	$4/5 > 7/10$; $4/5 = 8/10$, and $8/10 > 7/10$.
6	Write $>$, $<$, or $=$. Then show equivalent fractions with a common denominator. $5/12$ ___ $3/4$	$5/12 < 3/4$; $3/4 = 9/12$, and $5/12 < 9/12$.

PART 2 • APPLY IT

- Eli has finished more. $2/3 < 3/4$.** Rename the fractions in twelfths: $2/3 = 8/12$ and $3/4 = 9/12$. Since $9/12$ is greater than $8/12$, Eli has finished more.
- Jada completed more. $5/6 > 3/4$.** Rename the fractions in twelfths: $5/6 = 10/12$ and $3/4 = 9/12$. Since $10/12$ is greater than $9/12$, Jada completed more.

CHALLENGE

No. The pizzas are different-size wholes, so comparing $2/3$ and $3/5$ does not tell who ate more pizza.

Accept any correct common-denominator work using the allowed denominators and any clear comparison statement. For the challenge, accept explanations that say a fraction comparison is valid only when the fractions refer to the same-size whole.