

Grade 3 · Equivalent and Comparing Fractions · Worksheet

Common Core 3.NF.A.3 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

These 24 problems practice equivalent fractions, whole numbers written as fractions, and comparing fractions from standard 3.NF.A.3. The early problems use bars and number lines to show that different fractions can be the same size.

Later problems compare fractions with the same numerator or the same denominator and put fractions in order. The last six are word problems about ribbons, pizza, garden beds, a relay, a trail, and different wholes.

Grade 3 Common Core: 3.NF.A.3

Problem 1: Same size

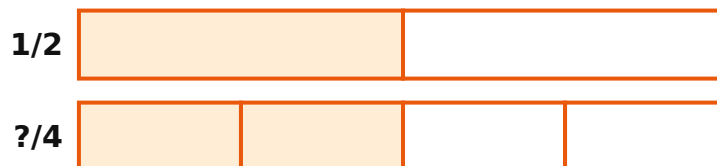
The two bars are the same size. Write the fraction for the shaded part of each bar. Then write an equation that shows the fractions are equal.



Two bars of the same size.

Problem 2: Halves and fourths

Use the bars to find the missing number: $\frac{1}{2} = \frac{?}{4}$.



The shaded parts of the two bars have the same length.

Problem 3: Halves and sixths

Find the missing number: $\frac{1}{2} = \frac{?}{6}$.

Problem 4: Thirds and sixths

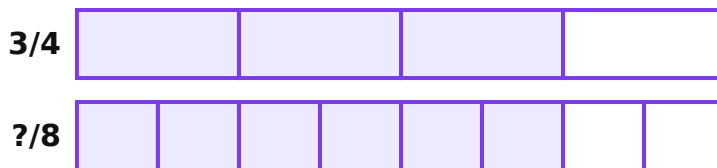
Find the missing number: $\frac{1}{3} = \frac{?}{6}$.



Two bars of the same size.

Problem 5: Fourths and eighths

Find the missing number: $\frac{3}{4} = \frac{?}{8}$.



Two bars of the same size.

Problem 6: Two thirds

Find the missing number: $\frac{2}{3} = \frac{?}{6}$.

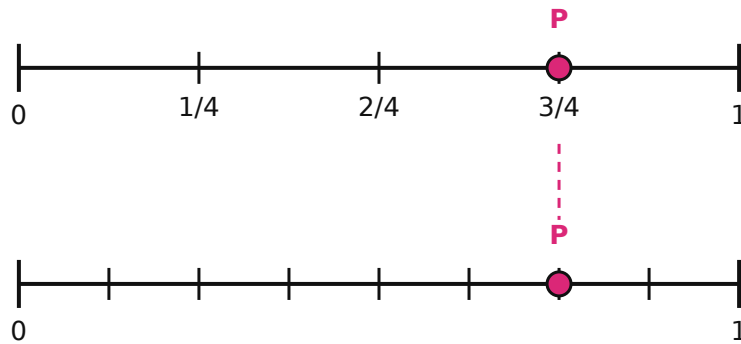
Problem 7: A simpler name

Write the missing number in each equation.

- a. $\frac{2}{4} = \frac{1}{?}$
- b. $\frac{2}{6} = \frac{1}{?}$
- c. $\frac{4}{8} = \frac{1}{?}$
- d. $\frac{4}{6} = \frac{2}{?}$

Problem 8: Same point on a number line

Point P is at $\frac{3}{4}$ on the top number line. Write the fraction that names point P on the bottom number line.



Two number lines from 0 to 1.

Problem 9: Whole numbers as fractions

- Write 3 as a fraction with denominator 1.
- Write 5 as a fraction with denominator 1.
- Write $\frac{6}{1}$ as a whole number.

Problem 10: A whole bar

The bar is cut into 4 equal parts and every part is shaded.



A bar with all 4 equal parts shaded.

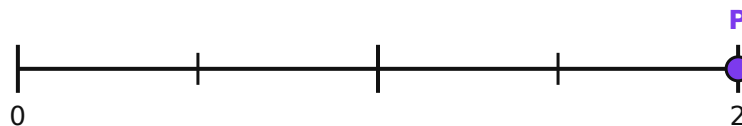
- Write the fraction that names the shaded part.
- Write the same amount as a whole number.

Problem 11: Fractions equal to 1

Circle each fraction that is equal to 1: $\frac{3}{3}$, $\frac{2}{3}$, $\frac{6}{6}$, $\frac{8}{8}$, $\frac{4}{8}$.

Problem 12: Whole numbers on a number line

The number line is cut into halves. Point P is at 2. Write 2 as a fraction with denominator 2.



A number line from 0 to 2.

Problem 13: Same denominator, bars

Compare the fractions. Write $>$, $<$, or $=$ in the blank: $\frac{3}{8}$ $[\]$ $\frac{5}{8}$.



Two bars of the same size.

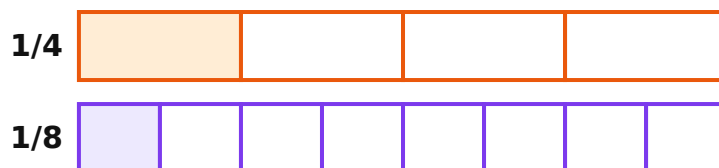
Problem 14: Same denominator

Compare each pair of fractions with $>$, $<$, or $=$.

- a. $\frac{2}{10}$ $[\]$ $\frac{4}{10}$
- b. $\frac{7}{100}$ $[\]$ $\frac{10}{100}$
- c. $\frac{10}{400}$ $[\]$ $\frac{1}{4}$

Problem 15: Same numerator, bars

Compare the fractions. Write $>$, $<$, or $=$ in the blank: $\frac{1}{4}$ $[\]$ $\frac{1}{8}$.



Two bars of the same size.

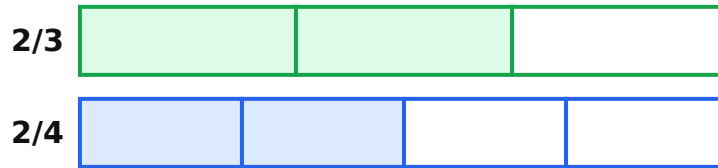
Problem 16: Same numerator

Compare each pair of fractions with $>$, $<$, or $=$.

- a. $\frac{3}{4}$ $[\]$ $\frac{3}{5}$
- b. $\frac{2}{100}$ $[\]$ $\frac{2}{10}$
- c. $\frac{5}{60}$ $[\]$ $\frac{1}{8}$

Problem 17: Which is greater

Which is greater, $\frac{2}{3}$ or $\frac{2}{4}$? Use the bars to explain.



Two bars of the same size.

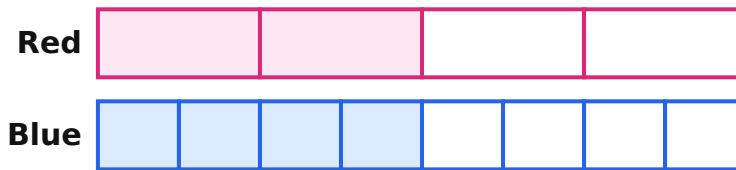
Problem 18: Put in order

Write each group of fractions in order from least to greatest.

- a. $\frac{5}{8}, \frac{1}{8}, \frac{3}{8}$
 b. $\frac{1}{2}, \frac{1}{8}, \frac{1}{4}$

Problem 19: Two ribbons

Aisha has two ribbons that are the same length. She uses $\frac{2}{4}$ of the red ribbon and $\frac{4}{8}$ of the blue ribbon. Does she use the same length of each ribbon? Write an equation.



The red and blue ribbons are the same length.

Problem 20: Pizza slices

Jamal and Priya order two pizzas of the same size. Jamal eats $\frac{3}{8}$ of his pizza. Priya eats $\frac{5}{8}$ of hers. Who eats more pizza? Write a comparison.

Problem 21: Garden beds

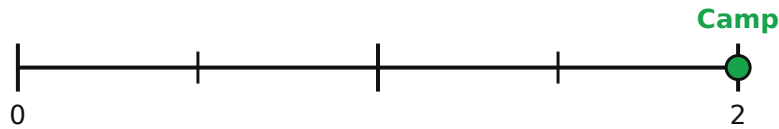
Two garden beds are the same size. Liam plants $\frac{2}{3}$ of the first bed with beans. Sofia plants $\frac{2}{6}$ of the second bed with carrots. Who plants the greater part of a bed?

Problem 22: Relay teams

A relay course is 1 mile long. Team A has 4 runners who each run $\frac{1}{4}$ mile. Team B has 2 runners who each run $\frac{1}{2}$ mile. Write the distance each team runs as a fraction and as a whole number of miles. Are the distances equal?

Problem 23: Camp on the trail

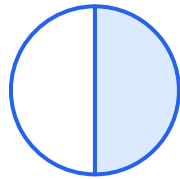
Markers on a trail are placed every $\frac{1}{2}$ mile. Sofia's campsite is at the marker for $\frac{4}{2}$ miles. How many whole miles from the start is the campsite?



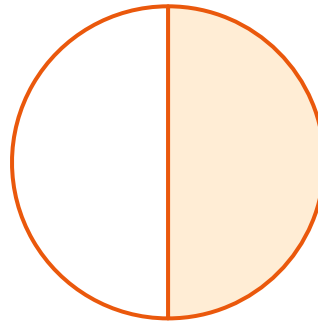
The trail from 0 miles to 2 miles.

Problem 24: Different wholes

Sofia eats $\frac{1}{2}$ of a small pizza. Ethan eats $\frac{1}{2}$ of a large pizza. Both ate the fraction $\frac{1}{2}$. Did they eat the same amount of pizza? Explain.



Small pizza



Large pizza

The small and large pizzas each have half shaded.