

Grade 4 · Equivalent Fractions and Comparing Fractions · Worksheet

Common Core 4.NF.A.1, 4.NF.A.2 · mathovore.fr

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

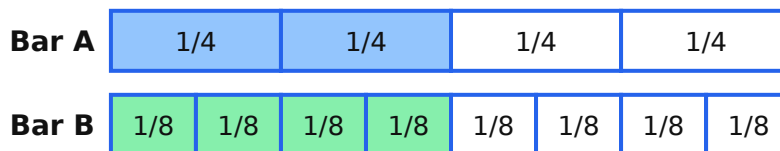
These 24 problems practice making equivalent fractions with area models, number lines, and multiplication or division of the numerator and denominator (4.NF.A.1).

They also practice comparing fractions with different numerators and denominators by using benchmarks, common denominators, and visual models, and recording each result with $>$, $<$, or $=$ (4.NF.A.2). The last six are word problems.

Grade 4 Common Core: 4.NF.A.1 · 4.NF.A.2

Problem 1: Name the shaded parts

Write the fraction shaded in each bar. Then write a sentence that compares them using $=$, $<$, or $>$.



Two bars of the same length.

Problem 2: Fill in the numerator

Find the missing numerator.

- a. $\frac{1}{12} = \frac{?}{60}$
- b. $\frac{1}{12} = \frac{?}{120}$
- c. $\frac{1}{10} = \frac{?}{40}$
- d. $\frac{1}{4} = \frac{?}{8}$

Problem 3: Tenths and hundredths

- a. Write $\frac{2}{5}$ as an equivalent fraction with denominator 10.
- b. Write $\frac{7}{10}$ as an equivalent fraction with denominator 100.

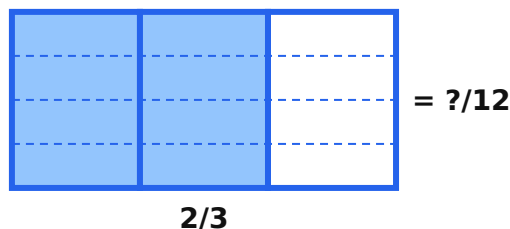
c. Write $\frac{1}{4}$ as an equivalent fraction with denominator 100.

Problem 4: Divide to get an equivalent fraction

- a. Write $\frac{6}{100}$ with a smaller numerator and denominator.
- b. Write $\frac{10}{12}$ with a smaller numerator and denominator.
- c. Write $\frac{4}{10}$ with a smaller numerator and denominator.
- d. Write $\frac{8}{12}$ with a smaller numerator and denominator.
- e. Write $\frac{50}{100}$ with a smaller numerator and denominator.

Problem 5: Area model of thirds

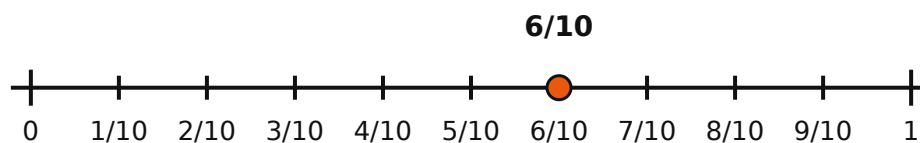
The model shows $\frac{2}{3}$ shaded. Each third is cut into 4 equal pieces. Write an equivalent fraction with denominator 12.



Each third is cut into 4 equal pieces.

Problem 6: Number line in tenths

The point is at six tenths. Write the same number as a fraction with denominator 5.



A point at 6 tenths.

Problem 7: Equivalent or not

- a. Are $\frac{3}{4}$ and $\frac{9}{12}$ equivalent? Write yes or no.
- b. Are $\frac{4}{15}$ and $\frac{16}{60}$ equivalent? Write yes or no.
- c. Are $\frac{10}{12}$ and $\frac{5}{6}$ equivalent? Write yes or no.
- d. Are $\frac{6}{12}$ and $\frac{1}{2}$ equivalent? Write yes or no.

Problem 8: Find the missing denominator

Find the missing denominator.

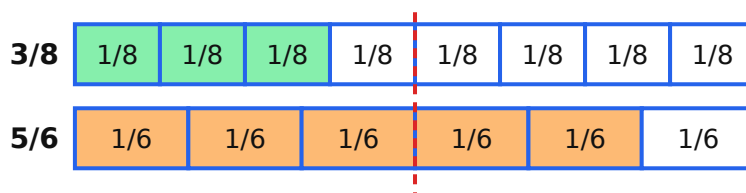
- $\frac{3}{100} = \frac{?}{1000}$
- $\frac{4}{100} = \frac{?}{1000}$
- $\frac{20}{?} = \frac{200}{1000}$
- $\frac{12}{?} = \frac{120}{1000}$

Problem 9: Three names for one third

Write three fractions equivalent to $\frac{1}{3}$ by multiplying the numerator and denominator by 2, 3, and 4.

Problem 10: Compare to one half

Use the dashed line marking one half to help with parts (a) and (b).



The dashed line is at one half.

- Compare $\frac{3}{8}$ with $\frac{1}{2}$ using $<$, $>$, or $=$.
- Compare $\frac{4}{10}$ with $\frac{1}{2}$ using $<$, $>$, or $=$.
- Compare $\frac{2}{3}$ with $\frac{1}{2}$ using $<$, $>$, or $=$.
- Compare $\frac{4}{10}$ with $\frac{1}{2}$ using $<$, $>$, or $=$.
- Compare $\frac{7}{12}$ with $\frac{1}{2}$ using $<$, $>$, or $=$.

Problem 11: Same denominator

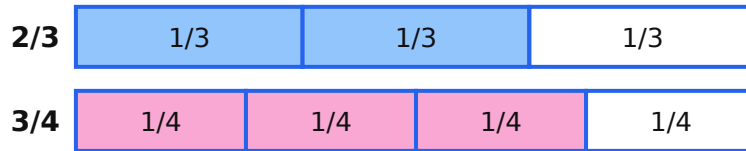
- Compare $\frac{5}{12}$ and $\frac{3}{12}$.
- Compare $\frac{7}{12}$ and $\frac{9}{12}$.
- Compare $\frac{5}{12}$ and $\frac{5}{12}$.

Problem 12: Same numerator

- Compare $\frac{3}{10}$ and $\frac{3}{100}$.
- Compare $\frac{4}{10}$ and $\frac{4}{100}$.
- Compare $\frac{3}{4}$ and $\frac{3}{40}$.

Problem 13: Compare with bars

Use the bars to compare $\frac{2}{3}$ and $\frac{3}{4}$.



Two bars of the same length.

Problem 14: Common denominators

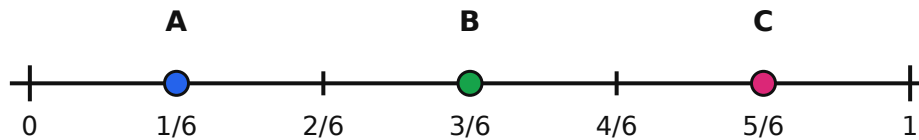
- Rewrite with a common denominator, then compare $\frac{3}{4}$ and $\frac{5}{6}$.
- Rewrite with a common denominator, then compare $\frac{3}{4}$ and $\frac{4}{6}$.
- Rewrite with a common denominator, then compare $\frac{7}{12}$ and $\frac{2}{3}$.

Problem 15: Order the fractions

- Order $\frac{3}{4}$, $\frac{1}{2}$, $\frac{5}{8}$ from least to greatest.
- Order $\frac{2}{3}$, $\frac{1}{6}$, $\frac{5}{12}$ from least to greatest.

Problem 16: Points in sixths

Points A, B, and C are on the number line. (a) Write the fraction for each point. (b) Write point B as a fraction with denominator 2. (c) Which points are less than $\frac{1}{2}$?



Points A, B, and C.

Problem 17: Compare using hundredths

Compare each pair by rewriting the first fraction with denominator 100.

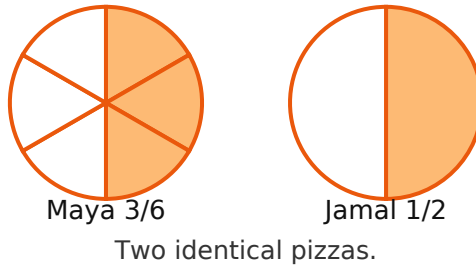
- Compare $\frac{3}{10}$ and $\frac{28}{100}$.
- Compare $\frac{4}{5}$ and $\frac{75}{100}$.

Problem 18: Find the mistake

Liam says that $\frac{1}{4}$ is greater than $\frac{1}{3}$ because 4 is greater than 3. Explain his mistake and compare the fractions correctly.

Problem 19: Pizza night

Maya ate $\frac{3}{6}$ of a pizza. Jamal ate $\frac{1}{2}$ of an identical pizza. Who ate more?



Problem 20: Ribbon for crafts

Sofia has $\frac{5}{8}$ yard of ribbon. Ethan has $\frac{3}{4}$ yard of ribbon. Who has more ribbon?

Problem 21: Free throws

Priya made $\frac{3}{4}$ of her free throws at practice. Aisha made $\frac{5}{6}$ of hers. Who made the greater fraction of free throws?

Problem 22: Farmers market peaches

At the farmers market, Mei sold $\frac{5}{12}$ of her peaches. Liam sold $\frac{1}{2}$ of his peaches. Both started with the same number. Who sold the greater share?

Problem 23: Dimes and pennies

A dime is $\frac{1}{10}$ of a dollar and a penny is $\frac{1}{100}$ of a dollar. Noah has 7 dimes. Diego has 65 pennies. Who has more money?

Problem 24: Trail run

On a trail run, Jamal ran $\frac{5}{8}$ of the trail, Priya ran $\frac{2}{3}$ of it, and Sofia ran $\frac{7}{12}$ of it. Order the runners from the shortest distance to the longest.