

Grade 3 - Equivalent and Comparing Fractions - Lesson

Common Core 3.NF.A.3 · maths-pdf.fr/en/

This **grade 3 equivalent fractions lesson** for 3rd Grade covers equivalent and comparing fractions (Common Core 3.NF.A.3), with a free PDF to print.

Equivalent fractions name the same amount, such as $\frac{1}{2}$, $\frac{2}{4}$ and $\frac{4}{8}$. They are the same size on a model and at the same point on a number line. A whole number is also a fraction: $\frac{4}{4} = 1$ and $\frac{6}{2} = 3$. To compare fractions with the same denominator, compare numerators; with the same numerator, compare denominators.

Grade 3 · Common Core State Standards: **3.NF.A.3**

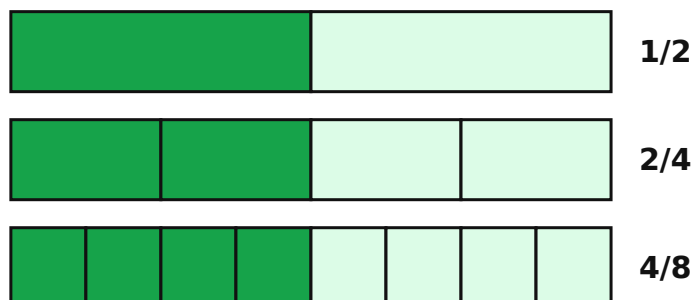
Key facts in this grade 3 equivalent fractions lesson

Key facts

- Equivalent fractions name the same amount and sit at the same point on a number line.
- Examples with denominators 2, 3, 4, 6, and 8: $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$ and $\frac{2}{3} = \frac{4}{6}$.
- A fraction with the same top and bottom number equals 1, and $\frac{n}{1}$ equals n .
- Same denominator: the greater numerator makes the greater fraction.
- Same numerator: the smaller denominator makes the greater fraction.

What are equivalent fractions?

Two fractions are **equivalent** when they name the same amount, even if they look different. Cut a bar into 2 equal parts, then into 4, then into 8. The shaded amount stays the same.



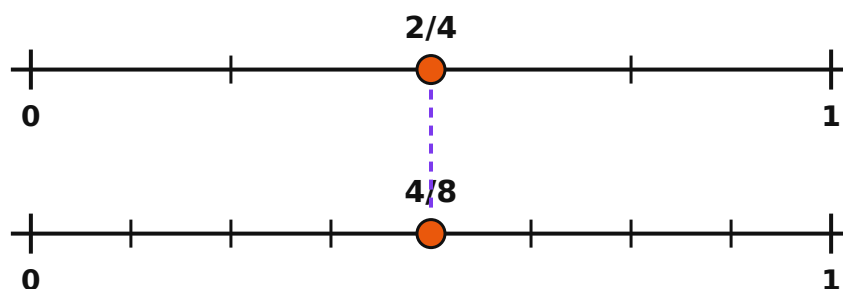
The three bars have the same length and the same shaded amount: $1/2 = 2/4 = 4/8$.

Equivalent fractions

Fractions that are the same size or sit at the same point on a number line are equivalent.
For example, $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$.

How does a number line show equivalent fractions?

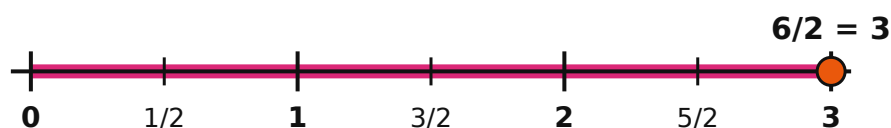
Put two number lines from 0 to 1 above each other. Cut one into fourths and the other into eighths. The point $\frac{2}{4}$ lines up exactly with $\frac{4}{8}$. Same point, same number.



Fourths and eighths: the point $2/4$ is exactly where $4/8$ sits on the lower line.

Can a whole number be written as a fraction?

Yes. A fraction with the same numerator and denominator is one whole: $\frac{4}{4} = 1$. Any whole number is a fraction with denominator 1, so $\frac{3}{1} = 3$. Counting halves also works: six halves reach 3, so $\frac{6}{2} = 3$.



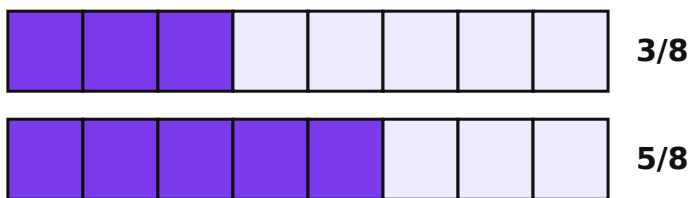
Six hops of $1/2$ from 0 reach 3, so $6/2 = 3$.

How do you compare two fractions?

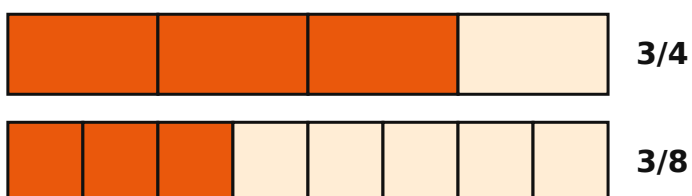
You can only compare fractions when they describe the same whole. Use the symbols $<$, $>$, and $=$.

- **Same denominator:** the parts are the same size, so the greater numerator is the greater fraction.
- **Same numerator:** the fraction with the smaller denominator is greater, because its

parts are bigger.



Same denominator: $\frac{3}{8}$ is less than $\frac{5}{8}$ because 3 parts is less than 5 parts.



Same numerator: fourths are bigger parts than eighths, so $\frac{3}{4}$ is greater than $\frac{3}{8}$.

Worked example

1. Look at the two fractions $\frac{2}{3}$ and $\frac{2}{6}$. The numerators match.
2. Compare the denominators. Thirds are bigger pieces than sixths.
3. Write the answer: $\frac{2}{3} > \frac{2}{6}$.

Grade 3 equivalent fractions lesson: questions and answers

What are equivalent fractions in third grade?

Equivalent fractions are different names for the same amount, like $\frac{1}{2}$ and $\frac{2}{4}$. You can see it when two models have the same shaded size.

How can you tell two fractions are equivalent on a number line?

Mark both fractions on number lines of the same length. If they land on the same point, the fractions are equivalent.

How do you write a whole number as a fraction?

Use denominator 1, so $5 = \frac{5}{1}$. You can also use equal numerator and denominator for 1, such as $\frac{6}{6}$, or count parts like $\frac{6}{2} = 3$.

How do you compare fractions with the same denominator?

The parts are the same size, so compare the numerators. The fraction with the greater numerator is greater, so $\frac{5}{8}$ is greater than $\frac{3}{8}$.

Why is $\frac{1}{3}$ greater than $\frac{1}{6}$?

The numerators are the same, so compare part sizes. A whole cut into 3 equal parts has bigger parts than a whole cut into 6, so $\frac{1}{3}$ is greater.

How to use this grade 3 equivalent fractions lesson

Read the definitions first, then follow the worked method line by line and redo the example on paper without looking. When every step makes sense, move on to the worksheet, then check yourself with the quiz.

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