

Equivalent fractions

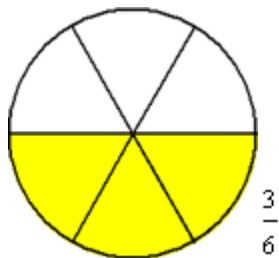
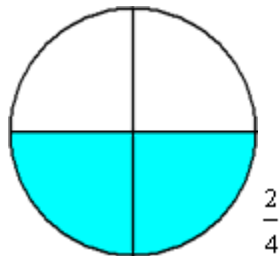
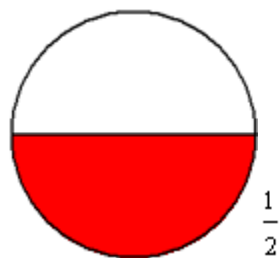
Definition: Equivalent fractions are different fractions that name the same number.

Equivalent Fractions



What do the fractions in example 1 have in common?

Example 1

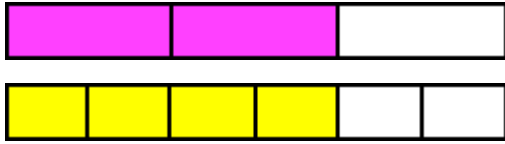


Each fraction in example 1 represents the same number.

These are *equivalent* fractions.

The fractions $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$ and $\frac{4}{8}$ are equivalent since each represents the same number.

Example:



The fractions $\frac{2}{3}$ and $\frac{4}{6}$ are equivalent.

Two-thirds is equivalent to four-sixths.

To find equivalent fractions, multiply the numerator AND denominator by the same nonzero [whole number](#).

$$\frac{1}{4} \xrightarrow{\times 6} \frac{6}{24}$$

=

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You may also need to order a set of fractions that had different denominators. For example:

$\frac{1}{3}$ $\frac{2}{4}$ $\frac{5}{6}$ $\frac{2}{3}$ $\frac{1}{12}$

One way of doing this would be to change all the denominators so that they were the same. This would mean multiplying the numerator and the denominator by the same number.

- You could change all the denominators to 12, so the first fraction would be multiplied by 4 to make $\frac{4}{12}$.
- The second fraction would be multiplied by 3 to make $\frac{6}{12}$.
- The third fraction would be multiplied by 2 to make $\frac{10}{12}$.
- The fourth fraction would be multiplied by 4 to make $\frac{8}{12}$.
- The last fraction would stay the same.
- This would mean you could compare and order the five fractions.

