

## COMPARING FRACTIONS

When comparing two fractions that have a common denominator – meaning they have the SAME number on the bottom – you can look at the numerators (the numbers on the top of the fraction) to decide which fraction is greater.

The fraction with the HIGHER numerator is the GREATER fraction when they have the same denominator.

$$4/9 > 2/9$$

If the fractions you are comparing have the SAME numerator (top numerator) than the fraction with the SMALLER denominator (bottom number) is the GREATER fraction.

$$3/7 > 3/9$$

If the fractions have the same denominator and the numerator is greater:

The following fractions have the same denominator (bottom numbers) and different numerators (top numbers) too.

$$3/4 > 2/4$$

So, you'll need to find a common denominator in order to compare the fractions.

In this case, we can find a common denominator by MULTIPLYING.

**Remember:** whatever you multiply the numerator by you have to multiply the denominator by the SAME number in a fraction.

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We need to find a number that BOTH fractions are multiples of, a common denominator. The common denominator we can find for both fractions is **12!**

$$\frac{3}{4} \times 3 = \frac{9}{12}$$

$$\frac{2}{3} \times 4 = \frac{8}{12}$$

$$\frac{3}{4} > \frac{2}{3}$$

Because

$$\frac{9}{12} > \frac{8}{12}$$

## Putting Fractions in Order from Least to Greatest

Fractions

When fractions have the same denominator, look at the numerator to determine which is greater.

Example:



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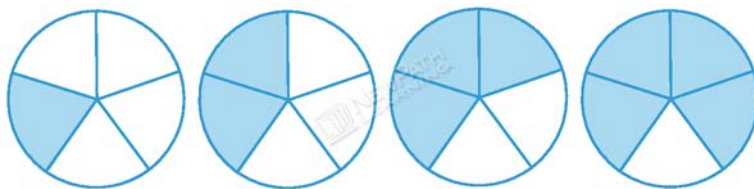
$\frac{2}{5}$        $\frac{1}{5}$        $\frac{4}{5}$        $\frac{3}{5}$

These four fractions each have a common denominator: 5

So, we need to look at the numerators (the numbers on the top of the fraction) to put these fractions in order from LEAST to GREATEST.

Here are the fractions in order from least to greatest:

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



## Fractions without common denominators

If you need to put fractions in order that do NOT have common denominators, you need to complete an extra step:

You need to **find a COMMON denominator** (as explained above) of all the fractions and THEN put them in order from least to greatest.

$$1/2 \quad 3/4 \quad 5/8$$

These three fractions have a common denominator of **16**

$$1/2 \rightarrow 8/16 \quad \text{and} \quad 3/4 \rightarrow 12/16 \quad \text{and} \quad 5/8 \rightarrow 10/16$$

So we can



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