

NOTES

Ordering Fractions

5

VOCABULARY:

denominator: The value written below the line within a fraction, indicating the number of equal parts into which one whole is divided. For example, in the fraction $\frac{3}{4}$, the denominator is 4.

numerator: The top part of a fraction. For $\frac{5}{8}$, the numerator is 5.

Sometimes we need to compare two fractions to discover which is larger or smaller.

There are two main ways to compare fractions: using **decimals**, or using the **same denominator**.

The Same Denominator Method

Which fraction is bigger: $\frac{3}{4}$ or $\frac{5}{7}$?

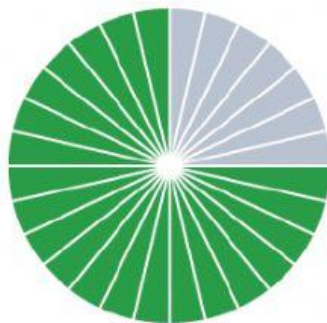
It is hard to answer this question just by looking at the fractions. However, if you write the fractions with the same bottom number, or denominator, the question will be easy.

$\frac{3}{4}$ has a denominator of 4, and $\frac{5}{7}$ has a denominator of 7.

4 and 7 both divide into 28, so rewrite the fractions with a denominator of 28.

$$\frac{3}{4} = \frac{21}{28}$$

$$\frac{5}{7} = \frac{20}{28}$$



$\frac{21}{28}$



$\frac{20}{28}$

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It is easy to see that $\frac{21}{28}$ is bigger than $\frac{20}{28}$

Therefore $\frac{3}{4}$ is bigger than $\frac{5}{7}$

The Decimal Method of Comparing Fractions

Convert each fraction to decimals, and then compare the decimals.

Which is bigger?

$\frac{3}{8}$ or $\frac{5}{12}$

$$\begin{array}{r} 0.378 \\ \frac{3}{8} = 8 \overline{) 3.000} \\ \underline{- 24} \\ 60 \\ \underline{- 56} \\ 040 \\ \underline{- 40} \\ . . \end{array}$$

$$\begin{array}{r} 0.41\overline{6} \\ \frac{5}{12} = 12 \overline{) 5.000} \\ \underline{- 48} \\ 020 \\ \underline{12} \\ 80 \\ \underline{72} \\ 8 \end{array}$$

So $\frac{5}{12}$ is bigger.

Watch this video