

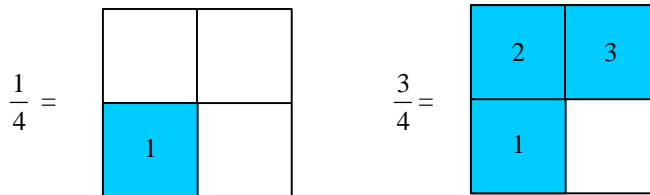
Fractions

Given two fractions, how can I tell which is larger?

Fractions cannot be compared unless they have the same denominator. When two fractions do have the same denominator, it is easy to tell which is larger. *The fraction with the larger numerator is the larger fraction.*

Example

Compare $\frac{1}{4}$ to $\frac{3}{4}$:



Since 3 is larger than 1, you know that $\frac{3}{4}$ must be the larger fraction.

When the denominators are *different*, you must first create equivalent fractions with the same denominator. Then compare the numerators.

Example

Compare $\frac{9}{16}$ and $\frac{1}{2}$

$$\begin{array}{ccc} \frac{9}{16} & \text{and} & \frac{1}{2} \\ \downarrow & & \downarrow \\ \frac{9}{16} & & \frac{1 \times 8}{2 \times 8} \\ \downarrow & & \downarrow \\ \frac{9}{16} & & \frac{8}{16} \end{array}$$

In this problem, rewrite $\frac{1}{2}$ so that it has a denominator of 16. That will allow you to compare it to $\frac{9}{16}$.

Now it is easy to see that $\frac{9}{16}$ is the larger fraction.