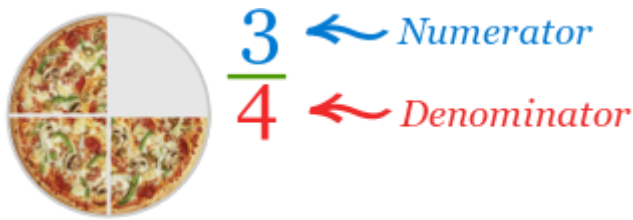


Adding on Fractions

A fraction like $\frac{3}{4}$ says we have 3 out of the 4 parts the whole is divided into.



There are 3 simple steps to add fractions:

- Make sure the bottom numbers (the denominators) are the same
- Add the top numbers (the numerators), put that answer over the denominator
- Simplify the fraction (if possible)

Example

$$\frac{1}{4} + \frac{1}{4}$$

The bottom numbers (the denominators) are already the same. Go straight to step 2.

Add the top numbers and put the answer over the same denominator:

$$\frac{1}{4} + \frac{1}{4} = \frac{1+1}{4} = \frac{2}{4}$$

Simplify the fraction:

$$\frac{2}{4} = \frac{1}{2}$$

Example

$$\frac{1}{3} + \frac{1}{6}$$

The bottom numbers are different. See how the slices are different sizes?



We need to make them the same before we can continue, because we can't add them like that.

The number "6" is twice as big as "3", so to make the bottom numbers the same we can multiply the top and bottom of the first fraction by 2, like this:

$$\frac{1}{3} = \frac{2}{6}$$

Important: you multiply both top and bottom by the same amount, to keep the value of the fraction the same.

Now the fractions have the same bottom number (6), and our question looks like this:

$$\frac{2}{6} + \frac{1}{6}$$



The bottom numbers are now the same, so we can go to step 2.

Add the top numbers and put them over the same denominator:

$$\frac{2}{6} + \frac{1}{6} = \frac{2+1}{6} = \frac{3}{6}$$



Simplify the fraction:

$$\frac{3}{6} = \frac{1}{2}$$