

## Fractions

### How do I reduce fractions?

To reduce a fraction, find a whole number that will *divide* evenly into **both** the numerator and denominator.

Keep doing this until no number other than 1 will work.

#### Example

Reduce the fraction  $\frac{18}{32}$  to lowest terms.

Since both the numerator and denominator are even, let's start by dividing by 2:

$$\frac{18 \div 2}{32 \div 2} = \frac{9}{16}$$

Now check: Can this fraction be reduced any further? No, since there is no whole number other than 1 that will divide into 9 and 16.

#### Example

Reduce the fraction  $\frac{15}{40}$ .

Start by thinking about numbers you can use to divide (2, 3, 4, 5, etc.). You will find that the first one to work is 5:

$$\frac{15 \div 5}{40 \div 5} = \frac{3}{8} \quad \text{This fraction cannot be reduced any further.}$$

#### Example

Reduce the fraction  $\frac{18}{30}$ .

Since both the numerator and denominator are even, let's start by dividing by 2:

$$\frac{18 \div 2}{30 \div 2} = \frac{9}{15}$$

If you look carefully, you'll notice that both numerator and denominator are divisible by 3.

$$\frac{9 \div 3}{15 \div 3} = \frac{3}{5} \quad \text{This fraction cannot be reduced any further.}$$