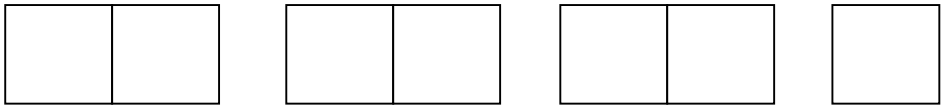
Simplifying improper fractions

Have a look at the fractions $\frac{7}{2}$ and $\frac{12}{8}$.

Looking at $\frac{7}{2}$: there are **two** halves in a whole, so in **seven** halves there are **3** wholes and **one half** left over - which is $3\frac{1}{2}$. This is called a **mixed fraction** or **mixed number**.

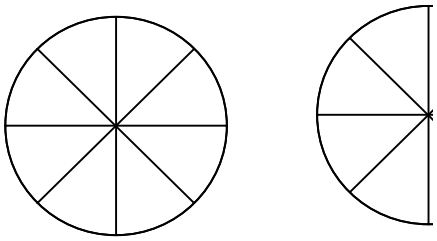
In other words, 7 ÷ 2 = 3 remainder 1. So the answer written as a mixed fraction is $3\frac{1}{2}$.



Looking at $\frac{12}{8}$: there are **eight** eighths in a whole, so in **12** eighths there's **one** whole and four eighths left over - which is $1\frac{4}{8}$.

In other words, 12 ÷ 8 = 1 remainder 4. So the answer written as a mixed fraction is $1\frac{4}{8}$.

Did you notice that $\frac{4}{8}$ can be simplified again to $\frac{1}{2}$ making the correct answer $1\frac{1}{2}$?



Summary
To change an improper or top-heavy fraction to a mixed number - in other words, a number and a fraction:

1. Divide the **top** number by the **bottom**. This gives you the number of whole ones you need.
2. Work out the **remainder**. This gives you the fraction that's **left over**.
3. See if the answer needs to be **simplified**. In other words, can you divide the top and bottom by the same number without a remainder.