

IMPROPER FRACTIONS

Improper fractions are fractions where the top number is bigger than the bottom number, like $\frac{7}{4}$.

Find out more:

- about improper fractions and how they work
- what a mixed number is
- how to change an improper fraction to a mixed number
- and how to change a mixed number to an improper fraction.

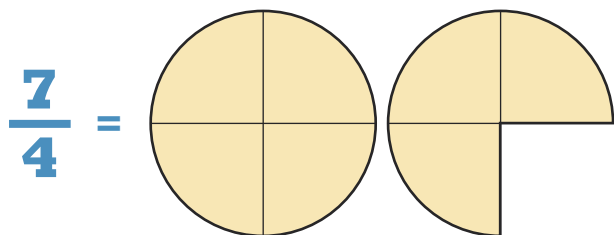
An improper fraction has a numerator (top number) that is bigger than the denominator (bottom number).

For example:

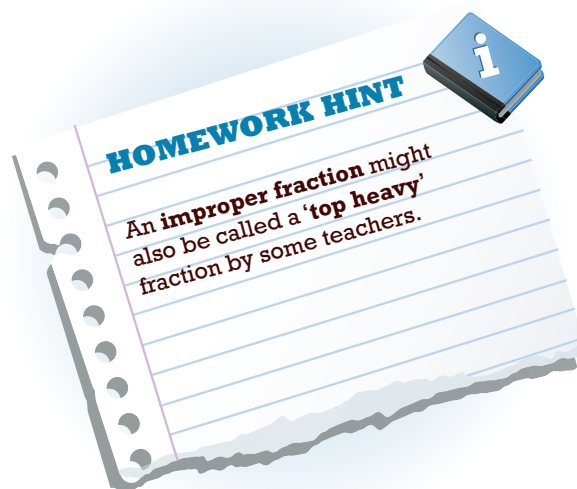
$\frac{7}{4}$ is an **improper fraction**.

The numerator (7) is bigger than the denominator (4).

There are four quarters in a whole object. So, seven quarters is the same as one whole, plus 3 more quarters.



These three extra quarters are the **REMAINDER**, or what's left over. (You can't make another whole out of them.)



Mixed numbers

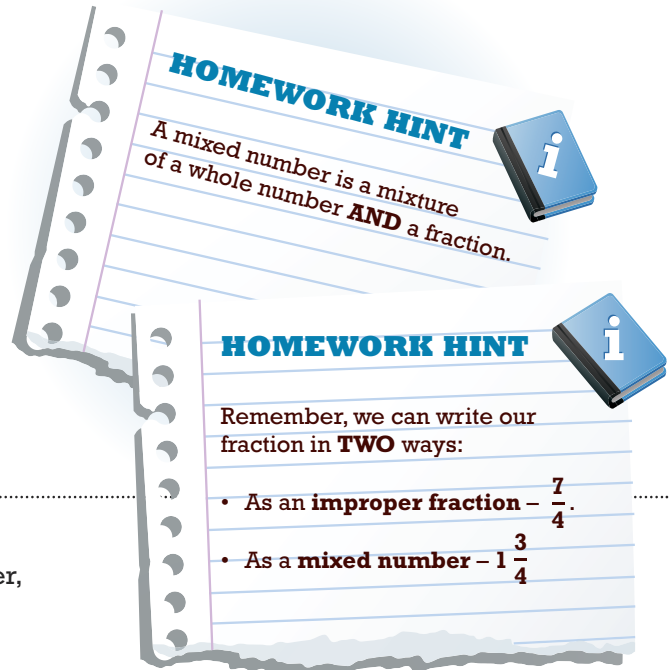
We can write our fraction, $\frac{7}{4}$ in another way – as a **mixed number**.

- The one is written as a **whole number** – 1.
- The three quarters, our left over part, is written as a **fraction** – **three quarters** ($\frac{3}{4}$).
- So our mixed number is $1\frac{3}{4}$.

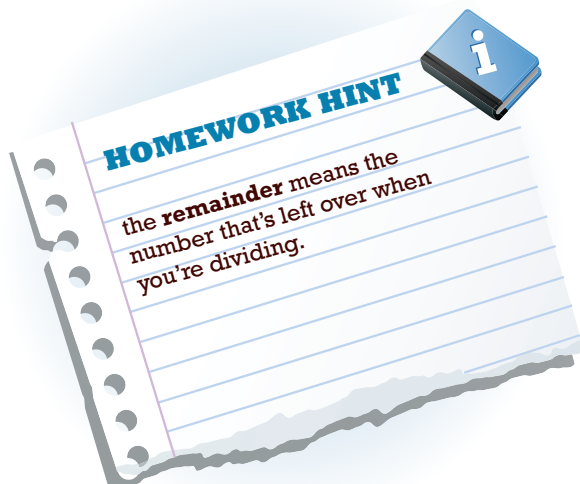
To change any improper fraction to a mixed number, follow these steps.

The fraction $\frac{15}{7}$ is our example.

1. Divide the numerator by the denominator. In this case, 15 divided by 7 gives you 2, with 1 left over.
2. The whole number from the division becomes the first number in your mixed number. In this case, 2 is your whole number.
3. The remainder (the number left over), becomes the numerator in the fraction.
4. The 1 left over is your **REMAINDER**. It becomes the numerator.
5. Keep the original denominator. In this case, it's 7. So your **fraction** is $\frac{1}{7}$.
6. Put the two figures together – $2\frac{1}{7}$ is your **mixed number**.



$$\begin{array}{r} 2 \text{ REMAINDER } 1 \\ 7 \overline{)15} \end{array}$$



$$2 + \frac{1}{7} = 2\frac{1}{7}$$

If you still need help – check out the **Examples**.