



Changing percentages to decimals using division

The **quick** way to turn a **percentage into a decimal** is to **divide it by 100**.

For example, to change 90% to a decimal work out $90 \div 100$:

$$90 \div 100 = 0.9$$

so 90% is the **same as** 0.9

In the same way, divide 5% by 100 to make it into a decimal:

$$5 \div 100 = 0.05$$

so 5% = 0.05

This method works for all percentages.

Here are some more percentages that have been divided by 100 to make decimals:

$$99 \div 100 = 0.99 \quad \text{so } 99\% = 0.99$$

$$90 \div 100 = 0.9 \quad \text{so } 90\% = 0.9$$

$$66 \div 100 = 0.66 \quad \text{so } 66\% = 0.66$$

$$50 \div 100 = 0.5 \quad \text{so } 50\% = 0.5$$

$$25 \div 100 = 0.25 \quad \text{so } 25\% = 0.25$$

$$10 \div 100 = 0.1 \quad \text{so } 10\% = 0.1$$

$$100 \div 100 = 1 \quad \text{so } 100\% = 1.0$$

Tip

Another trick is to think of percentages and decimals as being similar to pence and pounds.

If you write **75p** in pounds you get **£0.75**.

In the same way, if you write **75%** as a decimal you get **0.75**.

What about a small percentage like 2%? First write 2p in pounds:

$$2\text{p} = \text{£}0.02$$

$$\text{so } 2\% = 0.02$$