



Changing percentages to decimals using fractions

There are many ways to change **percentages to decimals**. You can use **fractions** to help you make the conversion.

Remember that percent means 'out of 100'.

Example: what is 75% expressed as a decimal?

75% means exactly the same as **75 out of 100**, which is the same as $\frac{75}{100}$.

Once you've expressed a percentage as a fraction out of 100 you can **convert it into a decimal**. Put the fraction into a **place value** table. Put the last figure of the top number in the hundredths column and fill in the rest backwards, like this:

Tens 10	Units 1	.	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$
	0	.	7	5	

Without calculation you can see that **75% is the same as 0.75**.

Always start by putting the last figure in the hundredths.

Here are some more examples:

Tens 10	Units 1	.	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$
	0	.	3	0	
	0	.	0	6	

Convert 30% to a decimal. 30% means 30 out of 100 = $\frac{30}{100}$

When you put the fraction $\frac{30}{100}$ into the table you can see that **30% is the same as 0.3**

Convert 6% to a decimal. 6% means 6 out of 100 = $\frac{6}{100}$

When you put the fraction $\frac{6}{100}$ into the table you can see that **6% is the same as 0.06**

Remember to fill empty columns with zeros.