

## Using zero with decimals

Zeros are important when it comes to decimals. They are often used as **place holders**. This means that they are used to make sure **digits** are **shown in the right place**. For example:

10.5   1.05   1.5

These numbers look similar, but the zero 'holds' the other digits in the right place to make sure they have the correct value. Look at them in a place-value table:

Hundreds	Tens	Units	.	Tenths	Hundredths
	1	0	.	5	
		1	.	0	5
		1	.	5	

Without the zero as place holders all the numbers would be 1.5!

A zero is also used in front of the decimal point. For example:

- 75 pence is the same as £0.75
- 30 pence is the same as £0.30
- 34 cm is the same as 0.34 m
- 250 g is the same as 0.25 kg

## Placing zeros at the end of a number

When you put **zeros at the end** of a number they **don't change the value**.

For example:

$$2.8 = 2.80 = 2.800 = 2.800000$$

$$1.74 = 1.740 = 1.7400 = 1.74000000$$

You usually drop the final zeros as they make no difference to the value.

But with **money** you always have **two places for the pence**. So sometimes you have a zero at the end for money. For example, £1.50 or £12.80.