

Decimals

We use the decimal system to represent numbers. The word “decimal” refers to “a system of numbers and arithmetic based on the number ten, tenth parts, and powers of ten”. The root of the word “decimal” is “dec” meaning 10 or “deci”, a tenth.

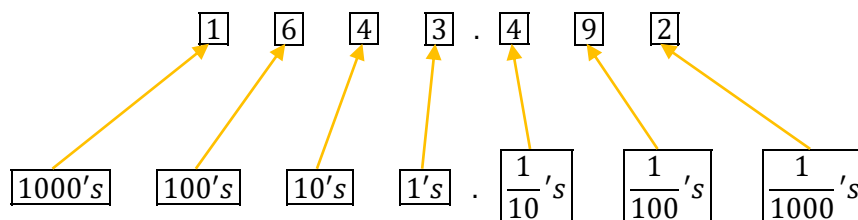
The decimal system is a base-10 system – which means that each column in the sequence of numbers is 10 times bigger than the column to the right. The following example shows this:

Take the number 1643.492

What can we say about this number?

- There are 7 significant figures
- There are 3 decimal places
- The value of the number is between one thousand and two thousand

Let's look more closely:



The number 1643.492 can be broken down into a sequence of numbers:

1	thousand	1000	+
6	hundreds	600	+
4	tens	40	+
3	units	3	+
4	tenths	.4	+
9	hundredths	.09	+
2	thousandths	.002	+
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		=1643.492	

The decimal point marks the point between the whole number (to the left) and the “decimal fraction” (to the right):

