# Year 4 Decimals B Knowledge Organiser

Maths

**Key vocabulary:** tenths, hundredths, equivalents, part-whole, bar model, decimal point, rounding, number bonds, place value

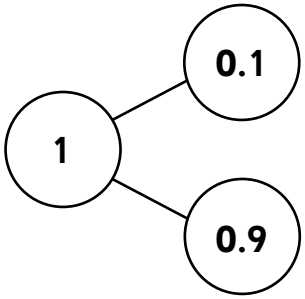
## Tenths and hundredths to a whole

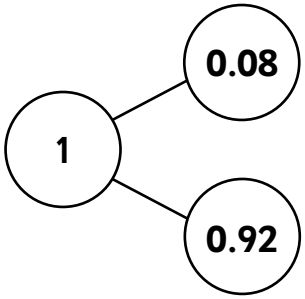
This bar is split into ten equal parts.

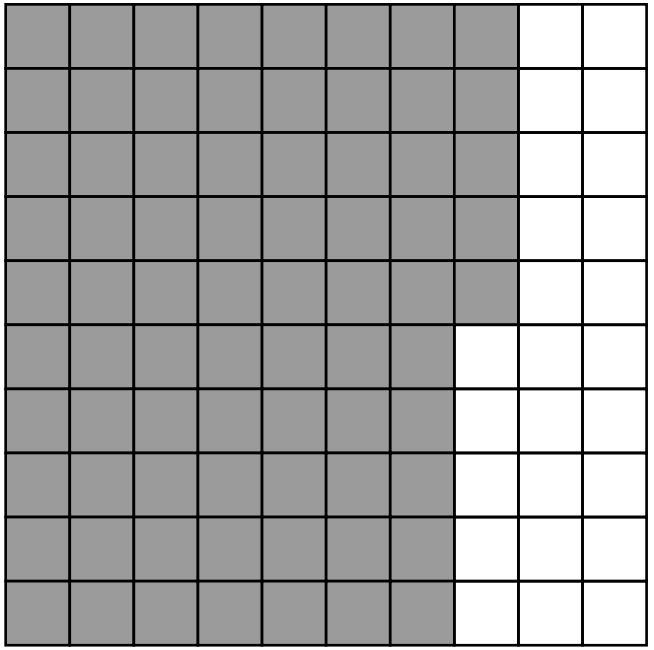
The whole bar is equivalent to 1 whole.

Each part is worth 1 tenth.

0.4 + 0.6 = 1



This hundred square is worth 1 whole.

Each part is worth 1 hundredth.

0.75 + 0.25 = 1

| tens | ones | tenths | hundreths |
|---|---|---|---|
| | 0 | 5 | 4 |

0.54 = 0.5 + 0.04

| 1 | |
|---|---|
| 0.64 | 0.36 |

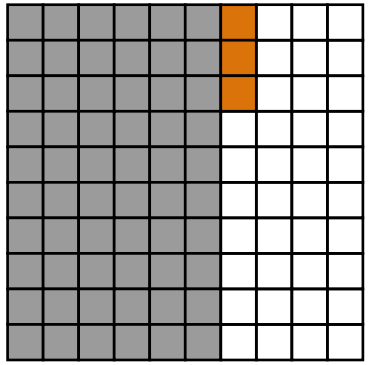
**Value of a digit**

0.3**9** → 0.09

**3**.45 → 3

0.**7** → 0.7

## Flexible partitioning of decimals

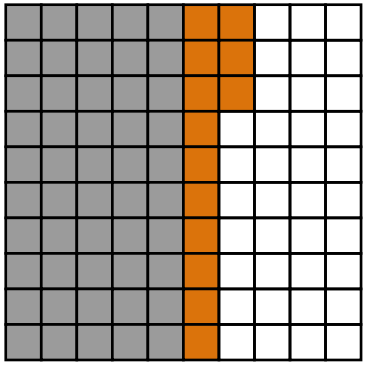


**Standard partitioning**

0.6 + 0.03

6 tenths are shaded grey.

3 hundredths are shaded orange.



**Flexible partitioning**

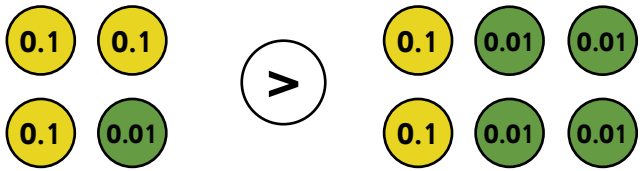
0.5 + 0.13

5 tenths are shaded grey.

13 hundredths are shaded orange.

The total overall is the same in both of these diagrams.

## Compare and order decimals



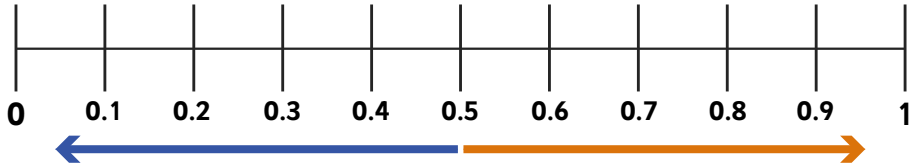

**0.31 is greater in value than 0.24.**

**3 tenths is greater than 2 tenths.**

0.45 0.54 0.63 0.78 0.94

**These decimals are in ascending order.**

## Round to the nearest whole number




0.1 0.2 0.3 0.4 all round down to the nearest whole number (0)

0.5 0.6 0.7 0.8 0.9 all round up to the nearest whole number (1)