

Ordering Decimals

- Place value can be used to compare decimal numbers.
- The numbers after the decimal point are called tenths, hundredths, thousandths, and so on.

Example

Put these numbers in order from smallest to biggest:

12.071, 12.24, 12.905, 12.902, 12.061

Each number starts with 12. So compare the tenths, hundredths and thousandths.

	Tens	Units	.	Tenths	Hundredths	Thousandths
12.071	1	2	.	0	7	1
12.24	1	2	.	2	4	0
12.905	1	2	.	9	0	5
12.902	1	2	.	9	0	2
12.061	1	2	.	0	6	1

First group by the number of tenths.

12.071, 12.061 are the two smallest as they have no tenths.

12.24 is the next smallest with 2 tenths.

12.905 and 12.902 are the two biggest as they have 9 tenths.

Then order them within each group.

12.061 is smaller than 12.071 as it has only 6 hundredths compared to 7 hundredths.

12.902 is smaller than 12.905, as although they both have the same hundredths, 12.902 has only 2 thousandths compared to 5 thousandths.

So from smallest to biggest:

12.061, 12.071, 12.24, 12.902, 12.905

Key Point

Ascending order is smallest to biggest.

Descending order is biggest to smallest.

Quick Test

- Work out 23.56×10
- Work out $56.781 \div 10$
- Write down the value of 10^5 .
- Write these numbers in ascending order:
16.34, 16.713, 16.705, 16.309, 16.2

Key Words

decimal point
power
index
standard form
ordinary number