

LCM and HCF

Two big fancy names but don't be put off — they're both real easy.

LCM — 'Lowest Common Multiple'

'Lowest Common Multiple' — sure, it sounds kind of complicated but all it means is this:

The **SMALLEST** number that will **DIVIDE BY ALL** the numbers in question.

- METHOD:**
- 1) **LIST** the **MULTIPLES** of **ALL** the numbers.
 - 2) Find the **SMALLEST** one that's in **ALL the lists**.
 - 3) Easy peasy innit?

EXAMPLE:

Find the lowest common multiple (LCM) of 12 and 15.

Multiples of 12 are: 12, 24, 36, 48, **60**, 72, 84, 96, ...

Multiples of 15 are: 15, 30, 45, **60**, 75, 90, 105, ...

So the **lowest common multiple (LCM)** of 12 and 15 is **60**.

Told you it was easy.

HCF — 'Highest Common Factor'

'Highest Common Factor' — all it means is this:

The **BIGGEST** number that will **DIVIDE INTO ALL** the numbers in question.

- METHOD:**
- 1) **LIST** the **FACTORS** of **ALL** the numbers.
 - 2) Find the **BIGGEST** one that's in **ALL the lists**.
 - 3) Easy peasy innit?

EXAMPLE:

Find the highest common factor (HCF) of 36, 54, and 72.

Factors of 36 are: 1, 2, 3, 4, 6, 9, 12, **18**, 36

Factors of 54 are: 1, 2, 3, 6, 9, **18**, 27, 54

Factors of 72 are: 1, 2, 3, 4, 6, 8, 9, 12, **18**, 24, 36, 72

So the **highest common factor (HCF)** of 36, 54 and 72 is **18**.

Told you it was easy.

Just take care listing the factors — make sure you use the proper method (as shown on the previous page) or you'll miss one and blow the whole thing out of the water.

LCM and HCF live together — it's a House of Commons...

You need to learn what LCM and HCF are, and how to find them. Turn over and write it all down. And after that, some lovely Exam Practice Questions — bonus.

Q1 Find the Lowest Common Multiple (LCM) of 9 and 12. [2 marks] 

Q2 Find the Highest Common Factor (HCF) of 36 and 84. [2 marks] 