KEY VOCAB

Integers are whole numbers that can be positive, negative or zero.

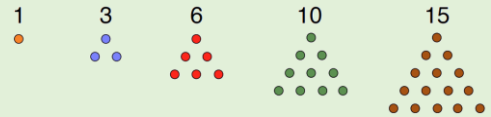
Multiples are just times tables. Multiples of 5 are 5, 10, 15, 20, 25 …

Factors is a number that divides into another number exactly and without leaving a remainder. Factors of 10 are 1, 2, 5 and 10.

Index notation is a way of representing repeated multiplications of the same number. For example $5^2 \times 6^3$ is index notation which also means 5 x 5 x 6 x 6 x 6.

Prime numbers will only divide by themselves and 1. Here are the first twelve prime numbers: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37.

Can you see why the numbers below are called **triangular numbers**?

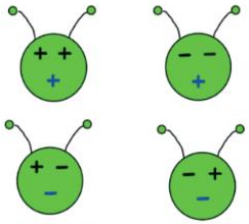


KEY KNOWLEDGE

Order of Operations

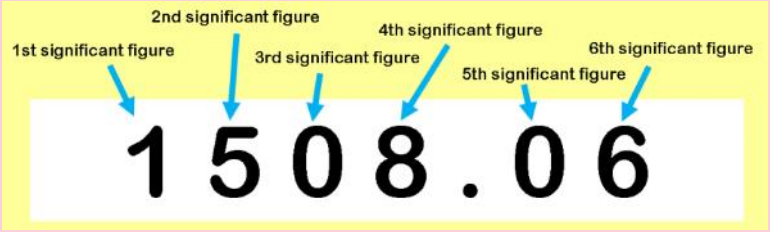
- **B** RACKETS
- **I** NDICES
- **D** IVISION
- **M** ULTIPLICATION
- **A** DDITION
- **S** UBTRACTION

Negative Numbers



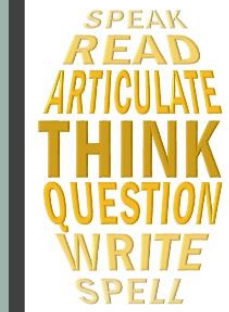
Remember: You can only apply these rules when the signs are touching or when you are multiplying/ dividing.

Significant Figures



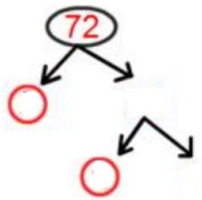
MATHS

Y8 Number



Write 72 as a product of its primes

Hint: Try to find two factors where one of them is prime!



Square Numbers

4 squared is 16

$4^2 = 16$

4 → 16

$\sqrt{16} = 4$

The square root of 16 is 4

Cube Numbers

2 cubed is 8

$2^3 = 8$

2 → 8

$\sqrt[3]{8} = 2$

The cube root of 8 is 2

Lowest Common Multiple (LCM)

is the first number in the times tables of two or more numbers.

3's: 3, 6, 9, 12, 15, 18, **21**, 24

7's: 7, 14, **21** 28, 35

LCM of 3 and 7 = 21

Highest Common Factor (HCF)

is the biggest factor that divides into two or more numbers.

30	12
1 x 30	1 x 12
2 x 15	2 x **6**
3 x 10	3 x 4
5 x **6**	

HCF of 30 and 12 = 6

FURTHER READING

https://www.bbc.co.uk/bitesize/topics/z7kw2hv
https://corbettmaths.com/contents/
https://www.pearsonactivelearn.com/app/library