Prime Numbers

A prime number is a number that can only be divided exactly by 1 and itself. That means it has only two factors - no more, no less!

2, 3, 5, 7, 11, 13, 17, 19, 23, 29,
31, 37, 41, 43, 47, 53, 59, 61, 67, 71,
73, 79, 83, 89, 97, 101, 103, 107, 109, 113,
127, 131, 137, 139, 149, 151, 157, 163, 167, 173,
179, 181, 191, 193, 197, 199, 211, 223, 227, 229,
233, 239, 241, 251, 257, 263, 269, 271, 277, 281,
283, 293, 307, 311, 313, 317, 331, 337, 347, 349,
353, 359, 367, 373, 379, 383, 389, 397, 401, 409,
419, 421, 431, 433, 439, 443, 449, 457, 461, 463,
467, 479, 487, 491, 499, 503, 509, 521, 523, 541

These are the “VIPs” of the number world - unique, indivisible, and essential to how maths works!

Prime numbers are like the atoms of mathematics - everything else is built from them! Every whole number greater than 1 can be broken down into a product of primes. For example:

- $12 = 2 \times 2 \times 3$
- $30 = 2 \times 3 \times 5$

This is called **Prime Factorisation,** and it’s one of the most powerful ideas in maths.