QUICK REFERENCE SHEET

Number Theory and Roots Formula Sheet

A fuller formula sheet for primes, GCD, LCM, squares, roots, and factorials, organised around simplification and structural reasoning.

QUICK OVERVIEW

Category: general math

Includes 2 related guide pages.

Links back to 6 calculator tools.

FORMULA HIGHLIGHTS

LCM via GCD

LCM(a, b) = |a x b| / GCD(a, b)

Factorial

n! = n x (n - 1) x ... x 1

WHAT BELONGS HERE

This pack combines the prime-factor structure behind simplification with the power and root operations that often feed geometry, algebra, and counting methods.

FORMULA HIGHLIGHTS

- Square: x^2
- Cube: x^3
- Nth root: value whose nth power returns the original number
- Factorial: n! = n x (n - 1) x ... x 1

GCD AND LCM REMINDERS

- GCD simplifies downward into shared structure.
- LCM scales upward to a common target.
- Prime factorisation often reveals both quickly.

WORKED EXAMPLES

GCD(18, 24) = 6, so 18:24 simplifies to 3:4.

LCM(6, 8) = 24 for common-denominator work.

0.81 has square root 0.9 because 0.9^2 = 0.81.