

# Algebra Basics Cheat Sheet

Essential algebra rules and formulas in one place

## PEMDAS / BODMAS

**P**arentheses (Brackets)

**E**xponents (Powers)

**M**ult and **D**iv (left to right)

**A**dd and **S**ub (left to right)

## Equation Types

**Linear:**  $y = mx + b$  (m=slope, b=intercept)

**Quadratic:**  $ax^2 + bx + c = 0$

**Quad formula:**  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

## Key Rules

**Solving:** Same operation to both sides

**Distribute:**  $a(b + c) = ab + ac$

**Like terms:**  $3x + 2x = 5x$

**Negatives:**  $(-a)(-b) = ab$ ,  $(-a)(b) = -ab$

## Inequalities

**Less than:**  $a < b$  (left on number line)

**Greater than:**  $a > b$  (right on number line)

**Key rule:** Flip sign when  $\times/\div$  by negative

Algebra is just a language. Once you learn to read it, every problem tells you exactly what to do.