Algebraic Conventions

Algebraic conventions are the standard rules and notations used to write and interpret algebraic expressions clearly, consistently and without confusion.

1 Letters Represent Unknowns

Use letters like x, y, or n to stand for values you don't yet know.

➤ Example: $x + 5 = 12$

2 Letters in Alphabetical Order

When multiplying variables, write them alphabetically.

➤ Example: Write $a \times b$ as ab, not ba

3 Numbers Come First

Always write numbers before letters in a product.

➤ Example: $3 \times x$ becomes $3x$

4 Multiplication is Implied

No need to write the multiplication symbol when values are next to each other.

➤ Example: $3 \times a \times b$ becomes $3ab$

5 No Number? Use a 1

If there's no number in front of a letter, imagine a 1 is there.

➤ Example: x is the same as $1x$

6 Division as a Fraction

Division is written using a fraction bar.

➤ Example: $x \div 2$ becomes $\frac{x}{2}$

7 Powers Mean Repeated Multiplication

An exponent tells you how many times to multiply a value by itself.

➤ Example: $y \times y \times y = y^3$

8 Like Terms Can Be Collected

You can only combine terms that have the same variable raised to the same power.

➤ Example: $2x + 5x = 7x$, but $2x + 5y$ cannot be simplified further