

CLASS 7

MATHS

REVISION NOTES

Revision Notes for Class 7 Maths Chapter 4: Expressions Using Letter-Numbers

Quick revision notes summarizing all key concepts from Class 7 Maths Chapter 4 "Expressions Using Letter-Numbers".

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A **letter-number** (variable) is a letter used to represent an unknown or changing quantity in place of a specific number.

An **algebraic expression** combines letter-numbers, numbers, and operations (+, −, ×, ÷), e.g. $3x + 5$.

A **term** is a part of an expression separated by + or − signs. In $3a + 5b - 7$, the terms are $3a$, $5b$, and -7 .

Like terms have the same letter-number(s) raised to the same power (e.g. $4x$ and $7x$ are like terms; $4x$ and $4x^2$ are not).

To **simplify** an expression, combine like terms by adding/subtracting their numerical coefficients.

When removing brackets preceded by a minus sign, the sign of every term inside the bracket flips.

Perimeter formulas: triangle = $3a$, square = $4a$, pentagon = $5a$, hexagon = $6a$, octagon = $8a$ (a = side length).

To **add** two expressions, combine like terms from both. To **subtract**, flip the sign of every term in the expression being subtracted, then combine like terms.

Algebraic expressions can describe real-world patterns: costs (rate × quantity + fixed charge), matchstick/shape patterns (constant + step × increment), and number sequences (nth term formulas like $4n+1$, $3n-2$, etc.).

To find the value of an expression for given letter-number values, substitute the values and simplify using the order of operations (BODMAS).

NCERT Solutions: [Class 7 Maths Chapter 4](#)

Extra Questions: [Class 7 Maths Chapter 4](#)

For the full chapter, see the [Class 7 Maths book page](#) and the [Class 7 Maths Formulas Handbook](#).