

Substitution

Chapter 20: Substitution · Topic 1

Key Concept

To substitute, we replace the variable in an expression with a given number, then calculate the result.

For example, if $x = 4$, then the expression $2x + 3$ becomes $2(4) + 3 = 8 + 3 = 11$.

Substitution helps us check if a value satisfies an equation or find the value of an expression for specific inputs.

Practising substitution builds our understanding of how algebraic expressions relate to actual numerical values.

Quick Revision Notes

- Substitution replaces a variable with a number.
- We then calculate the resulting expression.
- If $x=4$, then $2x+3 = 2(4)+3 = 11$.
- Substitution checks if values satisfy equations.
- It finds expression values for specific inputs.
- Practice builds algebra understanding.
- It connects expressions to real values.
- Substitution is a key algebra skill.

Practice Questions

- 1 If $x=6$, find $3x+2$.
- 2 If $y=2$, find $5y-3$.
- 3 If $a=10$, find $2a+4$.
- 4 Substitute $a=3$ into the expression $4a-1$.
- 5 Explain substitution in your own words.
- 6 Create your own substitution problem.