

Solving Simple Equations

Chapter 15: Finding the Unknown · Topic 2

Key Concept

For example, to solve $x + 5 = 12$, subtract 5 from both sides: $x + 5 - 5 = 12 - 5$, giving $x = 7$. For an equation like $3x = 15$, divide both sides by 3: $x = 5$. More complex equations may require multiple steps — combining like terms, then using inverse operations (addition/subtraction, then multiplication/division) in the correct order to fully isolate the variable, always checking the final answer by substituting it back into the original equation to verify it makes the equation true.

Quick Revision Notes

- Solving an equation means finding the variable value that makes it true.
- Perform the same operation on both sides to keep the equation balanced.
- Example: $x+5=12 \rightarrow$ subtract 5 from both sides $\rightarrow x=7$.
- Always check the solution by substituting it back into the original equation.

Practice Questions

- 1 Solve for x : $3x=15$.
- 2 Solve for y : $2y-4=10$.
- 3 Solve $x+7=20$, and verify your answer by substituting it back into the equation.