

Equations

Chapter 10: Equations · Topic 1

Key Concept

An equation has an equal sign ($=$), showing that the expressions on both sides have the same value, like $x+5=10$.

To solve an equation, we perform the same operation on both sides to isolate the variable, like subtracting 5 from both sides.

Checking a solution involves substituting the found value back into the original equation to verify both sides are equal.

Solving equations is a fundamental algebra skill used to solve real-life problems involving unknown quantities.

Quick Revision Notes

- Equation: two expressions equal, has '='.
- Example: $x+5=10$.
- Solve by doing same operation both sides.
- This isolates the variable.
- Check solution by substituting back.
- Verify both sides are equal.
- Equations are fundamental to algebra.
- They solve real-life unknown-quantity problems.

Practice Questions

- 1 Solve $x+7=15$.
- 2 Solve $3x=21$.
- 3 Solve $x-4=10$.
- 4 Check your solution for $x+7=15$.
- 5 Create your own simple equation and solve it.
- 6 Discuss why checking solutions matters.