

Linear Inequations

Chapter 4: Linear Inequations · Topic 1

Key Concept

Solving inequations follows similar rules to equations, except multiplying or dividing by a negative number flips the inequality sign.

The solution to an inequation is often a range of values, represented using interval notation or shown on a number line.

Compound inequations, like $-3 < x \leq 5$, combine two conditions, requiring the solution to satisfy both simultaneously.

Understanding linear inequations helps solve real-life problems involving constraints, like budget limits or minimum/maximum requirements.

Quick Revision Notes

- Solving inequations is similar to equations.
- Negative multiplication/division flips the sign.
- Solutions are often a range of values.
- This is shown using interval notation or number lines.
- Compound inequations combine two conditions.
- Example: $-3 < x \leq 5$.
- Both conditions must be satisfied.
- Inequations solve real-life constraint problems.

Practice Questions

- 1 Solve $2x - 5 > 3$.
- 2 Solve $-3x < 12$ (remember to flip the sign).
- 3 Solve the compound inequation $-2 < x + 1 \leq 4$.
- 4 Represent a solution on a number line.
- 5 Discuss a real-life example using an inequation.
- 6 Explain compound inequations in your own words.