

Number Puzzles and Patterns

Chapter 6: Number Play · Topic 1

Key Concept

A classic 3×3 magic square uses the numbers 1 through 9, arranged so every row, column, and diagonal sums to exactly 15. Similar number puzzles include number sequences with a hidden rule (like doubling each term, or alternating addition and subtraction), and cryptarithms, where letters represent digits in an arithmetic problem to be solved. These puzzles are not just recreational — they develop pattern recognition and problem-solving skills valuable throughout mathematics.

Quick Revision Notes

- A magic square has every row, column, and diagonal summing to the same total (magic constant).
- A classic 3x3 magic square using 1-9 has a magic constant of 15.
- Number sequences and cryptarithms are other types of number puzzles.
- Solving number puzzles builds logical reasoning and pattern recognition skills.

Practice Questions

- 1 Complete a simple 3x3 magic square puzzle.
- 2 Verify that a completed 3x3 magic square using 1-9 has rows summing to 15.
- 3 Create your own simple number pattern puzzle.