

Palindromes and Number Puzzles

Chapter 3: Number Play · Topic 2

Key Concept

One popular number puzzle involves taking any number, reversing its digits, adding the two together, and repeating this process — surprisingly, this often produces a palindrome after a few steps (for example, $48 + 84 = 132$; $132 + 231 = 363$, a palindrome). Such puzzles, while playful, help build number sense, mental arithmetic skills, and an appreciation for patterns hidden within seemingly ordinary numbers.

Quick Revision Notes

- A palindrome reads the same forwards and backwards (e.g., 121, 3553, 12321).
- The reverse-and-add process can turn many numbers into a palindrome after a few steps.
- Example: $48+84=132$; $132+231=363$ (a palindrome).
- Number puzzles like these build number sense and mental arithmetic skills.

Practice Questions

- 1 Find a palindrome number between 100 and 200.
- 2 Apply the reverse-and-add process to the number 15 until you reach a palindrome.
- 3 Write three palindrome numbers of your own.