

DELHI PUBLIC SCHOOL JAMMU

Session 2025-26

Assignment - 1

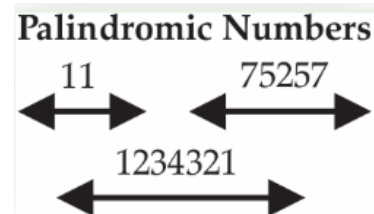
Class: VI
Topic: Patterns

Subject: Maths

Exploring Palindromic Numbers

Scenario:

Palindromic numbers are numbers that read the same forwards and backwards, such as 121, 1331, and 12321. These numbers exhibit symmetry and possess unique mathematical properties. One intriguing process involves creating palindromic numbers by reversing the digits of a number and adding it to the original number until a palindrome is obtained. This method highlights the beauty of numerical patterns and symmetry.



From Q1 to Q3, Choose the correct option:

Q1: Which of the following numbers is a palindrome?

- a) 12456 b) 56985 c) 98689 d) 12111

Q2: **Creating Palindromes:** Start with the number 87. Reverse its digits and add the result to the original number. If the sum is not a palindrome, repeat the process. How many steps does it take to reach a palindrome?

- a) 1 step b) 2 steps c) 3 steps d) 4 steps

Q3: **Palindromic Times:** On a 12-hour digital clock, what is the smallest interval between two palindromic times?

- a) 1 minute b) 2 minutes c) 3 minutes d) minutes

Q4: **Palindromic Dates:** Give a palindromic date that occurred in the 21st century.

Q5: **Smallest Palindromic Number:** What is the smallest three-digit number that remains the same when its digits are reversed?

Q6: **Greatest Palindromic Number:** What is the greatest three-digit number that is a palindrome?