

Mathematics
Practice Test Paper 6
(Ganita Prakash Part 2 | Chapter 6: Algebra Play)
Class VIII | 2026-27

Time Allowed: 45 Minutes

Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Show the necessary working in Sections B, C and D.
4. Study the given data and images carefully before answering the related questions.

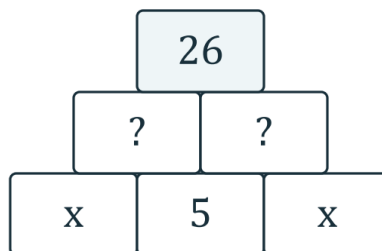
SECTION A

(5 questions $\times$ 1 mark = 5 marks)

1. A trick simplifies to $x + 8 - x$. Which starting numbers make its result 8?

- (A) Only positive numbers
- (B) Only 8
- (C) Only whole numbers
- (D) All numbers for which the steps are defined

2. The pyramid has equal outside entries x in its bottom row. If the top is 26, what is x ?



- (A) 5
- (B) 8
- (C) 3
- (D) 13

3. A three-digit number is cycled twice and all three forms are added. Which factor always divides the sum?

- (A) 1001
- (B) 13
- (C) 37
- (D) 7

4. A positive reversal difference is divided by 9. What is the greatest quotient when both digits are non-zero?

- (A) 8
- (B) 10
- (C) 7
- (D) 9

5. Moving a 2×2 calendar block down by one week increases its total by:

(A) 14

(B) 28

(C) 21

(D) 7

SECTION B

(4 questions $\times$ 2 marks = 8 marks)

6. A two-digit number has digit sum 10 and its tens digit is 4 greater than its ones digit. Find the number.

7. Choose the greatest of the three products shown. Compare their parts without finding the full products.

$$\begin{array}{|c|c|} \hline 9 & 6 \\ \hline \end{array} \times \begin{array}{|c|} \hline 3 \\ \hline \end{array} \quad \begin{array}{|c|c|} \hline 9 & 3 \\ \hline \end{array} \times \begin{array}{|c|} \hline 6 \\ \hline \end{array} \quad \begin{array}{|c|c|} \hline 6 & 3 \\ \hline \end{array} \times \begin{array}{|c|} \hline 9 \\ \hline \end{array}$$

8. A trick doubles x , adds 6, halves the result and subtracts x . It should leave 6. Find the actual result and correct the added constant.

9. In a four-row pyramid, one outside bottom entry increases by 5. Compare the top's increase with that caused by increasing an inner entry by 5.

SECTION C

(3 questions $\times$ 3 marks = 9 marks)

10. Use non-zero digits a, b, c to prove that the sum of their three cyclic numbers is 111 times their digit sum.

11. A booklet sells for ₹30 and costs ₹18 to make. Fixed daily costs are ₹720. Find the sales needed to cover costs and the profit from 75 sales.

12. The first n odd numbers total n^2 . For positive whole-number n , find the next n odd numbers' sum and the ratio of the two sums.

SECTION D

(Application Based Question - 3 marks)

13. A game doubles a player's coins and then charges a fixed fee c . The player starts with 20 coins.

(i) Express the coins left after one round.

(ii) What fee makes the number of coins stay at 20 after every round?

(iii) If the fee is 16 coins, find the amounts after two rounds and decide whether the player gains coins.