

Mathematics
Practice Test Paper 3
(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. The number machine acts from left to right. If the input is 5, what is the output?



- (A) 24 (B) 21
(C) 18 (D) 15
2. A three-row number pyramid has bottom row a, b, c . What is its top entry?
(A) $a + 2b + c$ (B) $2(a + b + c)$
(C) $a + b + c$ (D) $2a + b + 2c$
3. A 2×2 calendar block has top-left date a . Which expression gives the sum of its four dates?
(A) $4a + 16$ (B) $4a + 28$
(C) $4a + 14$ (D) $4a + 8$
4. In a shape grid, three identical triangles total 21. What is the value of one triangle?
(A) 3 (B) 9
(C) 6 (D) 7
5. Two distinct non-zero digits differ by 4. What is the positive difference between a number made from them and its reversal?
(A) 4 (B) 36
(C) 9 (D) 44

SECTION B

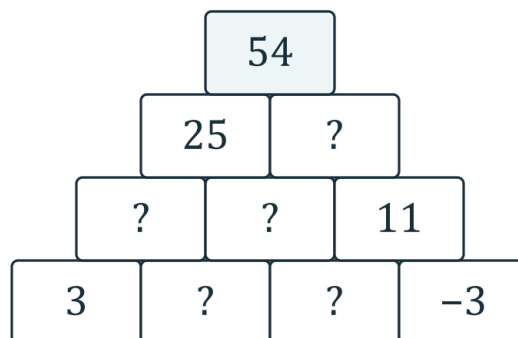
(4 questions $\times$ 2 marks = 8 marks)

6. Design a trick that starts by multiplying by 5 and ends by subtracting the original number, always leaving 4. Give and verify the missing steps.
7. A date code multiplies the month by 5, adds 2, multiplies by 20, then adds the day. What fixed number must be subtracted to recover the date?
8. A three-row pyramid has top 52 and bottom entries 8, x , 10. Find x .
9. Without multiplying both products in full, explain why 63×8 is greater than 83×6 . Find the difference.

SECTION C

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

10. Use digits a and b to prove that a two-digit number plus its reversal is divisible by 11. State the quotient.
11. A cart pays ₹900 daily fixed expenses and ₹12 to make each snack. At what price must 150 snacks be sold to earn ₹600 profit?
12. Complete the pyramid, where each box is the sum of the two below it. Show how you work down from the top.



SECTION D

(Application Based Question - 3 marks)

13. At a farm there are 35 horses and hens altogether. They have 100 legs in total.
- (i) If h is the number of horses, express the number of hens.
- (ii) Form a leg-count equation and find h .
- (iii) State the number of hens and check the total number of legs.