

Class 8 Mathematics – Thinking-Based Assessment

Chapters: Comparing Quantities & Algebraic Expressions and Identities

1. School Fair Profit

A school bought notebooks for ₹80 each and sold them at a 25% profit. 20% remained unsold. Find selling price, number sold out of 100, and total profit.

Answer: _____

2. Shopping Smart

A bag marked ₹2500 has 20% discount then 18% GST. Find final amount and explain whether discount or GST has greater effect.

Answer: _____

3. Garden Design

Length = $(3x+4)$ m, Breadth = $(x+2)$ m. Write expressions for perimeter and area. Find both when $x=5$.

Answer: _____

4. Pattern Investigation

Verify $(2x+3)^2 = 4x^2+12x+9$ using an algebraic identity. Then find its value for $x=4$.

Answer: _____

5. Sports Fund Challenge

₹12000 collected. 30% spent on equipment. Remaining divided among $(x+2)$ teams. Write expression, find amount for $x=4$, and justify how to increase amount per team.

Answer: _____