

◆ **A. Bela's Method – Multiplying Using Expansion**

Q1. Use Bela's method to multiply:

- **a) 32×46**

Break 46 into $40 + 6$

$$\rightarrow 32 \times 6 = 192$$

$$\rightarrow 32 \times 40 = 1280$$

$$\rightarrow \text{Total} = 192 + 1280 = \mathbf{1472}$$

- **b) 67×18**

Break 18 into $10 + 8$

$$\rightarrow 67 \times 8 = 536$$

$$\rightarrow 67 \times 10 = 670$$

$$\rightarrow \text{Total} = 536 + 670 = \mathbf{1206}$$

◆ **B. Shantaram the Special Cook**

Shantaram is paid ₹165 per day.

He worked for **28 days**.

$$\rightarrow 165 \times 28$$

$$= (165 \times 20) + (165 \times 8)$$

$$= 3300 + 1320 = \mathbf{₹4620}$$

If he works **all 365 days**:

$$\rightarrow 165 \times 365 =$$

$$= (165 \times 300) + (165 \times 60) + (165 \times 5)$$

$$= 49500 + 9900 + 825 = \mathbf{₹60,225}$$

◆ **C. Karunya the Landlord – Area and Cost**

Fields:

- **A:** $28 \text{ m} \times 27 \text{ m} = 756 \text{ m}^2$
- **B:** $36 \text{ m} \times 12 \text{ m} = 432 \text{ m}^2$
- **C:** $27 \text{ m} \times 19 \text{ m} = 513 \text{ m}^2$

Costs:

- **A:** $756 \times 95 = ₹71,820$
- **B:** $432 \times 110 = ₹47,520$
- **C:** $513 \times 120 = ₹61,560$

$$\rightarrow \text{Total} = \mathbf{₹1,80,900}$$

◆ D. Wages of Thulasi and Husband

- Thulasi (49 days \times ₹55) = ₹2695
 - Husband (42 days \times ₹58) = ₹2436
→ Total = ₹5131
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◆ E. Satish's Story

- 17 goats, ₹1 per goat → ₹17 per day
→ Monthly = 17×30 = ₹510
→ Yearly = 17×365 = ₹6205

His mother pays ₹5000 per month loan → ₹60,000 per year
→ Satish **does not earn enough**.

◆ F. Kamla Bai's Cow Story

- Cow cost = ₹17,500
- Kamla paid = ₹5,500
→ Govt paid = $17,500 - 5,500$ = ₹12,000

If 9 villagers got cows:

→ $9 \times ₹12,000$ = ₹1,08,000

Daily cow cost = ₹85

→ Monthly cost = 85×30 = ₹2550

Milk = 8 litres/day

→ 8×30 = 240 litres/month

At ₹9 per litre → 240×9 = ₹2160

- Loss = ₹2550 – ₹2160 = ₹390

➡ She spent more than she earned.

◆ G. Practice Problems (Examples)

- Sukhi's earning (₹98 \times 52) = ₹5096
 - Hariya's loan (₹2750 \times 24) = ₹66,000
 - Ratiram's milk ($13 \times 23 \times 30$) = ₹8970
 - Farmer sells 210 litres at ₹11 → ₹2310
 - 240 litres water at ₹12/litre → ₹2880
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◆ H. Division Practice

- $438 \div 9$ = 48 r6
- $3480 \div 12$ = 290
- $450 \div 7$ = 64 r2

- $2475 \div 11 = 225$
 - $900 \div 10 = 90$
 - $678 \div 6 = 113$
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◆ I. Word Problems

- Egg trays for **204 eggs** $\rightarrow 204 \div 12 = \mathbf{17}$ trays
- Books $\rightarrow 47 \times 23 = \mathbf{\text{₹}1081}$
- Petrol with **₹1000** at **₹47/litre** $\rightarrow 1000 \div 47 \approx \mathbf{21}$ litres