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G.D.GOENKA PUBLIC SCHOOL

Subject: Mathematics (8th)

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Chapter 9(Applications of Percentages)

Exercise 9.2

(8) A farmer bought 40 sheep at ₹600 per sheep. He kept them on his farm for 10 weeks and spent ₹50 per sheep per week on an average. If he sold the whole flock for ₹55,000 rupees, what was his profit percent?

Cost price of 40 sheep = $40 \times$ ` $600 =$ ` $24,000$

Expenses for 1 sheep for 1 weeks = ` 50

$\therefore$ Expenses for 40 sheep for 10 weeks = ` $50 \times 10 \times 40 =$ ` $20,000$

Cost price + Overhead = ` $44,000$

Selling price of 40 sheep = ` $55,000$

$\therefore$ Profit = ` $55,000 -$ ` $44,000 =$ ` $11,000$

$\therefore$ Profit percent $= \frac{\text{Profit}}{\text{CP}} \times 100 = \frac{`\ 11,000}{`\ 44,000} \times 100 = \frac{1}{4} \times 100 = 25\%$

(9) Sheila bought a house for ₹70 lakhs. She spent ₹4 lakhs on renovation and appointed a caretaker for an annual salary of ₹50,000. After 2 years, she sold the house for ₹81 lakhs. Find her profit percent.

Cost price of the house = ` $70,00,000$

Cost of renovation = ` $4,00,000$

Cost of salary for caretaker = $2 \times$ ` $50,000 =$ ` $1,00,000$

Total cost price including overhead expenses = ` $75,00,000$

Selling price of the house = ` $81,00,000$

$\therefore$ Profit = ` $81,00,000 -$ ` $75,00,000 =$ ` $6,00,000$

$\therefore$ Profit percent $= \frac{\text{Profit}}{\text{CP}} \times 100 = \frac{`\ 6,00,000}{`\ 75,00,000} \times 100 = \frac{6}{75} \times 100 = \frac{2}{25} \times 100 = 8\%$

(10) Aman sells a water heater for ₹4200 and makes a profit equal to $\frac{1}{6}$ of its cost price. Find the cost price.

Selling price of the heater = ` 4200

Given that profit $= \frac{1}{6} \times \text{CP}$

$\therefore$ ` $4200 = \text{CP} + \frac{1}{6} \times \text{CP} = \frac{7}{6} \times \text{CP}$

$\therefore \text{CP} = \frac{6}{7} \times$ ` $4200 = 6 \times$ ` $600 =$ ` 3600

Write Q8 to Q10 in your mathematics notebook.