

= ₹ 100% Loss = {(Loss/Cost Prize) × 100} = {(100/250) × 100} = {10000/250} = 40%

Q.2 Convert each part of the ratio to percentage: (b) 2:3:5 (a) 3:1 (c) 1:4 Sol: (a) Given: 3:1 Total parts by sum of the given ratio = 3 + 1 = 4Percent of 1st part = $(3/4) \times 100 \%$ =(300/4)%= 75% Percent of 2nd part = $(\frac{1}{4}) \times 100\%$ =(100/4)%= 25% (b) Given: 2:3:5 Total parts by sum of the given ratio = 2 + 3 + 5 = 10Percent of 1st part = $(2/10) \times 100 \%$ =(200/10)%= 20 % Percent of 2nd part = $(3/10) \times 100\%$ =(300/10)%= 30 % Percent of 3rd part = $(5/10) \times 100\%$ =(500/10)%= 50 % (c) Given: 1:4 Total parts by sum of the given ratio = 1 + 4 = 5Percent of 1st part = $(1/5) \times 100 \%$ =(100/5)%= 20 % Percent of 2nd part = $(4/5) \times 100\%$ = (400/5)%= 80 % (d) Given: 1:2:5 Total parts by sum of the given ratio = 1 + 2 + 5 = 8Percent of 1st part = $(1/8) \times 100 \%$ =(100/8)% $= 12\frac{1}{2}$ % Percent of 2nd part = $(2/8) \times 100\%$ = (200/8)%= 25 % Percent of 3rd part = $(5/8) \times 100\%$ =(500/8)%

(d) 1:2:5

$$= 62 - \%$$
Q.3 The population of a city decreased from 25,000 to 24,500. Find the percentage decrease. Sol: Since in a city, initial population = 25000
And final population = 24500
Population decrease = Initial population - Final population
$$= 25000 - 24500$$

$$= 500$$
So, Percentage decrement in population = (Population Decrease/Initial Population) × 100
$$= (500/25000) \times 100$$

$$= (50000/25000)$$

$$= 2\%$$
Thus, the percentage decrease is 2%.



$$= 40/7$$

= $5\frac{5}{7}\%$

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Q.5 I buy a T.V. for ₹ 10,000 and sell it at a profit of 20%. How much money do I get for it? Sol: Given: Bought a T.V. for. = ₹ 10000 And percentage of profit = 20% So, profit = $(20/100) \times 10000$ = ₹ 2000 Selling price will be = Cost Price + Profit = 10000 + 2000= ₹ 12000 Thus, I will get it for = ₹ 12000

Q.6 Juhi sells a washing machine for ₹ 13,500. She loses 20% in the bargain. What was the price at which she bought it?

Sol: Given: Juhi sells a washing machine for = ₹ 13500 Percentage of loss = 20% So, cost price of washing machine: Cost Prize = ₹ {(100/ (100 - loss %)) × Selling prize} = {(100/ (100 - 20)) × 13500} = {(100/ 80) × 13500} = {1350000/80} = ₹ 16875 Thus, she bought it = ₹ 16875

Q.7 (i) Chalk contains calcium, carbon and oxygen in the ratio 10:3:12. Find the percentage of carbon in chalk.

(ii) If in a stick of chalk, carbon is 3g, what is the weight of the chalk stick? *Sol:*

(i) Given: Ratio of calcium, carbon and oxygen in Chalk = 10:3:12 Total part by sum of the ratio = 10 + 3 + 12 = 25Total part amount of carbon in Chalk = 3/25Percentage of carbon in Chalk = $(3/25) \times 100$ = 300/25= 12%

Thus, Percentage of carbon in Chalk is 12%.

(ii) Given: In a stick of chalk, weight of carbon = 3g Let *a* be the weight of chalk stick. So, 12% of a = 3 $(12/100) \times (a) = 3$ $a = 3 \times (100/12)$ a = 300/12a = 25gThus, The weight of the stick = 25g

Q.8 Amina buys a book for ₹ 275 and sells it at a loss of 15%. How much does she sell it for?

Sol: Amina buys a book for = ₹ 275 Percentage of loss = 15% So, selling price of book: Selling Prize = ₹ {((100 - loss %)/100) × cost prize} = {((100 - 15) /100) × 275)} = {(85 /100) × 275} = 23375/100 = ₹ 233.75 Thus, she sell the book = ₹ 233.75

Q.9 Find the amount to be paid at the end of 3 years in each case: (a) Principal = ₹ 1,200 at 12% p.a. (b) Principal = ₹ 7,500 at 5% p.a. **Sol:** The amount to be paid at the end of 3 years in each case: (a) Given: Principal = ₹ 1,200 at 12% p.a. Rate = 12%Time = 3 years So, simple interest = $(P \times R \times T)/100$ $=(1200 \times 12 \times 3)/100$ = 43200/ 100 = ₹ 432 Thus, the amount to be paid at the end of 3 years = (Principal + Simple Interest) =(1200+432)= ₹ 1632 (b) Given: Principal = ₹ 7,500 at 5% p.a. Rate = 5%Time = 3 years So, simple interest = $(P \times R \times T)/100$ $=(7500 \times 5 \times 3)/100$ = 112500/100

= ₹ 1125 Thus, the amount to be paid at the end of 3 years = (Principal + Simple Interest) =(7500+1125)= ₹ 8625 Q.10 What rate gives ₹ 280 as interest on a sum of ₹ 56,000 in 2 years? *Sol:* Given: Principle = ₹ 56,000, Simple interest = ₹ 280 time = 2 years Since, simple interest = $(P \times R \times T)/100$ Rate = (100 × Simple Interest) / (Principle × Time) $=(100 \times 280)/(56000 \times 2)$ = 28000/112000 = 0.25% Thus, 0.25% rate gives ₹ 280 as interest on a sum of ₹ 56,000 in 2 years. Q.11 If Meena gives an interest of ₹ 45 for one year at 9% rate p.a.. What is the sum she has borrowed? *Sol:* Given: Simple interest = ₹ 45, rate = 9%, Time = 1 year Since, simple interest = $(P \times R \times T)/100$ $45 = (P \times 9 \times 1) / 100$ $P = (45 \times 100)/9$ $= 5 \times 100$ =₹500 Thus, Meena borrowed = ₹ 500.