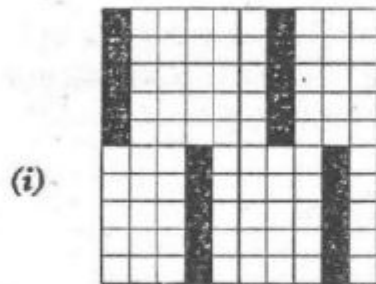


UNIT 7

FINANCIAL ARITHMETIC

EXERCISE NO. 7.1

Q.1 What percent of the following figures is shaded.



Solution

$$\begin{array}{rcl} \text{Total Boxes} & = & 100 \\ \text{Shades Boxes} & = & 20 \\ & = & \frac{20}{100} \\ & = & 20\% \end{array} \quad \text{Ans}$$



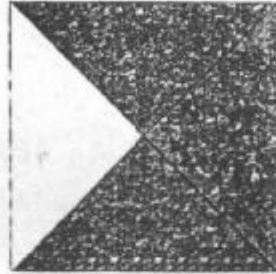
Solution

$$\begin{array}{rcl} \text{Total Boxes} & = & 100 \\ \text{Shaded Boxes} & = & 22 \end{array}$$

$$= \frac{22}{100}$$

$$= 22\% \quad \text{Ans}$$

(iii)



Solution

$$\begin{aligned} \text{Total Boxes} &= 4 \\ \text{Shaded Boxes} &= 3 \\ &= \frac{3}{4} \times 100 \\ &= 25 \times 3\% \\ &= 75\% \quad \text{Ans} \end{aligned}$$

Q.2 Convert the following into fractions and decimal.

(i) 25 %

Solution

$$\begin{aligned} \text{Fraction} &= 25\% = \frac{25}{100} \\ &= \frac{25}{100} = \frac{1}{4} \quad \text{Ans} \end{aligned}$$

Solution :

$$\text{Decimal Fraction} = 0.25 \quad \text{Ans}$$

(ii) 1 %

Solution

$$\begin{aligned} \text{Fraction} &= \frac{1}{100} \\ \text{Decimal Fraction} &= 0.01 \quad \text{Ans} \end{aligned}$$

(iii) 31 %

Solution :

$$\text{Fraction} = \frac{31}{100}$$

$$\text{Decimal Fraction} = 0.31 \quad \text{Ans}$$

(iv) 15 %

Solution :

$$\begin{aligned} \text{Fraction} &= \frac{15}{100} \\ &= \frac{3}{20} \end{aligned}$$

$$\text{Decimal Fraction} = 0.15 \quad \text{Ans}$$

(v) $8\frac{1}{2}$ %

Solution:

$$\begin{aligned} \text{Fraction} &= \frac{17}{2} \% \\ &= \frac{17}{200} \end{aligned}$$

$$\text{Decimal Fraction} = 0.085 \quad \text{Ans}$$

(vi) 20.5 %

Solution :

$$\begin{aligned} \text{Fraction} &= \frac{20.5}{100} \\ &= \frac{205}{10 \times 100} \\ &= \frac{205}{1000} \\ &= \frac{41}{2000} \end{aligned}$$

$$\text{Decimal Fraction} = 0.205 \quad \text{Ans}$$

(vii) 175 %

Solution :

$$\begin{aligned}\text{Fraction} &= \frac{175}{100} \\ &= \frac{7}{4}\end{aligned}$$

$$\text{Decimal Fraction} = 1.25 \quad \text{Ans}$$

(viii) 115 %

Solution:

$$\begin{aligned}\text{Fraction} &= \frac{115}{100} \\ &= \frac{23}{20}\end{aligned}$$

$$\text{Decimal Fraction} = 1.15 \quad \text{Ans}$$

(ix) 225 %

Solution:

$$\begin{aligned}\text{Fraction} &= \frac{225}{100} \\ &= \frac{9}{4}\end{aligned}$$

$$\text{Decimal Fraction} = 2.25 \quad \text{Ans}$$

(x) $2\frac{1}{5}$

Solution:

$$\begin{aligned}\text{Fraction} &= \frac{5}{2} \% \\ &= \frac{5}{2 \times 100} \\ &= \frac{5}{200} \\ &= \frac{1}{40}\end{aligned}$$

$$\text{Decimal Fraction} = 0.025 \quad \text{Ans}$$

Q.3 Convert the following fraction into percentage:

(i) $\frac{1}{4}$

Solution:

$$\begin{aligned}\frac{1}{4} \times 100 &= 25 \\ &= 25 \% \quad \text{Ans}\end{aligned}$$

(ii) $\frac{7}{20}$

Solution:

$$\begin{aligned}\frac{7}{20} \times 100 &= 35 \\ &= 35 \% \quad \text{Ans}\end{aligned}$$

(iii) $\frac{8}{25}$

Solution:

$$\begin{aligned}\frac{8}{25} \times 100 &= 32 \\ &= 32 \% \quad \text{Ans}\end{aligned}$$

(iv) $\frac{5}{4}$

Solution:

$$\begin{aligned}\frac{5}{4} \times 100 &= 125 \\ &= 125 \% \quad \text{Ans}\end{aligned}$$

(i) 25 %

Solution:

25 %

$$= \frac{25}{100} = 0.25$$

$$= 0.25 \quad \text{Ans}$$

$$\begin{array}{r} 0.25 \\ 100 \overline{)250} \\ \underline{200} \\ 500 \\ \underline{500} \\ 0 \end{array}$$

(ii) 31 %

Solution:

31 %

$$= \frac{31}{100} = 0.31$$

$$= 0.31 \quad \text{Ans}$$

$$\begin{array}{r} 0.31 \\ 100 \overline{)310} \\ \underline{300} \\ 100 \\ \underline{100} \\ 0 \end{array}$$

(iii) 1 %

Solution:

1 %

$$= \frac{1}{100} = 0.01$$

$$= 0.01 \quad \text{Ans}$$

(iv) $2\frac{1}{2}$ %

Solution:

$$2\frac{1}{2} \% = \frac{5}{2}$$

$$\frac{5}{2} \% = 2.5 \%$$

$$= \frac{2.5}{100} = 0.025$$

$$= 0.025 \quad \text{Ans}$$

$$\begin{array}{r} 0.025 \\ 100 \overline{)250} \\ \underline{200} \\ 500 \\ \underline{500} \\ 0 \end{array}$$

(v) 6.5 %

Solution:

$$\begin{aligned} 6.5\% &= \frac{6.5}{100} = 0.065 \\ &= 0.065 \quad \text{Ans} \end{aligned}$$

$$\begin{array}{r} 0.065 \\ 100 \overline{)650} \\ \underline{600} \\ 500 \\ \underline{500} \\ 0 \end{array}$$

Q.5 Convert the following decimal into percentage.

(i) 0.025:

Solution:

$$\begin{aligned} &= 0.025 \times 100 \\ &= \frac{25}{1000} \times 100 \\ &= \frac{25}{10} \% \\ &= 2.5\% \quad \text{Ans} \end{aligned}$$

(ii) 0.4

Solution:

$$\begin{aligned} &= 0.4 \times 100 \\ &= \frac{4}{10} \times 100 \\ &= 4 \times 10 \\ &= 40\% \quad \text{Ans} \end{aligned}$$

(iii) 0.85

Solution:

$$\begin{aligned} &= 0.85 \times 100 \\ &= \frac{85}{100} \times 100 \\ &= 85\% \quad \text{Ans} \end{aligned}$$

(iv) 0.105

Solution:

$$\begin{aligned} &= 0.105 \times 100 \\ &= \frac{105}{1000} \times 100 \end{aligned}$$

$$\begin{aligned} &= \frac{105}{10} \\ &= 10.5\% \quad \text{Ans} \end{aligned}$$

(v) 12.5

Solution:

$$\begin{aligned} &= 12.5 \times 100 \\ &= \frac{125}{10} \times 100 \\ &= 125 \times 10 \\ &= 1250\% \quad \text{Ans} \end{aligned}$$

(vi) 125.5

Solution:

$$\begin{aligned} &= 125.5 \times 100 \\ &= \frac{1255}{10} \times 100 \\ &= 1255 \times 10 \\ &= 12550\% \quad \text{Ans} \end{aligned}$$

Q.6 What percentage are following of 1 meter?

(i) 70 cm

Solution:

$$\begin{aligned} 100 \text{ cm} &= 1 \text{ meter} \\ &= \frac{70}{100} \times 100 \\ &= 70\% \\ \text{Required Percentage} &= 70\% \quad \text{Ans} \end{aligned}$$

(ii) 50 cm

Solution:

$$\begin{aligned} 100 \text{ cm} &= 1 \text{ meter} \\ &= \frac{50}{100} \times 100 \\ \text{Required Percentage} &= 50\% \quad \text{Ans} \end{aligned}$$

(iii) 75 cm

Solution:

$$75 \text{ cm} = 1 \text{ meter}$$

$$= \frac{75}{100} \times 100$$

Required Percentage = 75 % Ans

(iv) 125 cm

Solution:

125 cm

100 cm = 1 meter

$$= \frac{125}{100} \times 100$$

Required Percentage = 125 % Ans

(v) 100 cm

Solution:

100 cm

100 cm = 1 meter

$$= \frac{100}{100} \times 100$$

Required Percentage = 100 % Ans

Q.7 The sale of the books on science on a certain store is 30% write in fraction:

Solution:

Discount on sale = 30%

$$\text{Fraction} = \frac{30}{100}$$

$$= \frac{3}{10} \quad \text{Ans}$$

Q.8 Khalida obtained 96 marks out of 150. What percentage of marks has she obtained?

Solution:

Marks obtained = 96

Total marks = 150

$$= \frac{96}{150} \times 100$$

$$= \frac{96 \times 10}{15}$$

$$= 32 \times 2$$

$$= 64\% \quad \text{Ans}$$

Q.9 Find the following percentage:

(i) 10 % of 50

Solution:

$$\begin{aligned} &= 10\% \times 50 \\ &= \frac{10}{100} \times 50 \\ &= 5 \quad \text{Ans} \end{aligned}$$

(ii) 30 % of 70

Solution:

$$\begin{aligned} &= 30\% \times 70 \\ &= \frac{30}{100} \times 70 \\ &= 21 \quad \text{Ans} \end{aligned}$$

(iii) 25 % of 250

Solution:

$$\begin{aligned} &= 25\% \times 250 \\ &= \frac{25}{100} \times 250 = 5 \\ &= \frac{125}{2} \quad \text{Ans} \end{aligned}$$

(iv) 50 % of 50

Solution:

$$\begin{aligned} &= 50\% \times 50 \\ &= \frac{50}{100} \times 50 \\ &= 25 \quad \text{Ans} \end{aligned}$$

(v) 75 % of 750

Solution:

$$\begin{aligned} &= 75\% \times 750 \\ &= \frac{75}{100} \times 750 \\ &= \frac{1125}{2} \quad \text{Ans} \end{aligned}$$

(vi) 125 % of 50 cm

Solution:

$$\begin{aligned} &= 125\% \times 50 \\ &= \frac{125}{100} \times 50 \\ &= 62.5 \quad \text{Ans} \end{aligned}$$

(vii) 60 % of 300 liters

Solution:

$$\begin{aligned} &= 60\% \times 300 \\ &= \frac{60}{100} \times 300 \\ &= 180 \text{ liters} \quad \text{Ans} \end{aligned}$$

(viii) 20 % of Rs. 13.25

Solution:

$$\begin{aligned} &= 20\% \times 13.25 \\ &= \frac{20}{100} \times 13.25 \\ &= \frac{20}{100} \times 13.25 \\ &= \text{Rs. 2.65} \quad \text{Ans} \end{aligned}$$

(ix) 60.5 % of 8 Hrs

Solution:

$$\begin{aligned} &= 60.5\% \times 8 \\ &= \frac{60.5}{100} \times 8 \\ &= 4.84 \text{ hours} \quad \text{Ans} \end{aligned}$$

(x) 25 % of 172 meters

Solution:

$$\begin{aligned} &= 25\% \times 172 \\ &= \frac{25}{100} \times 172 \\ &= 43 \text{ meters} \quad \text{Ans} \end{aligned}$$

(xi) 15 % of 210

Solution:

$$\begin{aligned} &= 15 \% \times 210 \\ &= \frac{15}{100} \times 210 \\ &= \frac{63}{2} \quad \text{Ans} \end{aligned}$$

(xii) 75 % of 1011

Solution:

$$\begin{aligned} &= 75 \% \times 1011 \\ &= \frac{75}{100} \times 1011 \\ &= \frac{3033}{4} \quad \text{Ans} \end{aligned}$$

(xiii) 65 % of 910

Solution:

$$\begin{aligned} &= 65 \% \times 910 \\ &= \frac{65}{100} \times 910 = 1183 \\ &= \frac{1183}{2} \quad \text{Ans} \end{aligned}$$

(xiv) 35 % of 310

Solution:

$$\begin{aligned} &= 35 \% \times 310 \\ &= \frac{35}{100} \times 310 = \frac{2187}{20} \quad \text{Ans} \end{aligned}$$

Q.10 Write the following fraction in ascending and descending order using percentage. $\frac{2}{5}, \frac{1}{4}, \frac{3}{4}$

Solution:

$$\text{Ascending order: } = \frac{1}{4}, \frac{2}{5}, \frac{3}{4}$$

$$\text{Descending order: } = \frac{3}{4}, \frac{2}{5}, \frac{1}{4} \quad \text{Ans}$$

EXERCISE 7.2

Q.1 Obtained 60 marks out of 75 marks. What is the percentage of my marks:

Solution:

Marks obtained = 60

Total marks = 75

$$\begin{aligned}\text{Percentage} &= \frac{60}{75} \times 100 \\ &= \frac{60 \times 4}{31} \% \\ &= 20 \times 4\% \\ &= 80\% \quad \text{Ans}\end{aligned}$$

Q.2 Saima spent Rs. 300 out of Rs. 500. Find percentage of her expenditure.

Solution:

Total amount = 500 Rs.

Expenditure = 300 Rs.

$$\begin{aligned}\text{Percentage} &= \frac{300}{500} \times 100 \\ &= 60\% \quad \text{Ans}\end{aligned}$$

Q.3 There were 8500 voters in a village. 34% did not cast their votes. Find number of voters who cast their votes.

Solution:

Total voters = 8500

Vot did not cast = 34%

$$\% \text{ of vote} = \frac{34}{100} \times 8500 = 2890$$

Number of voter who cast the vots

$$= 8500 - 2890 = 5610$$

= 5610 voters. Ans

Q.4 The population of a village is 15000. If the population increase by 5% in a year. Find population after one year.

Solution:

$$\text{Total population} = 1500$$

$$5 \% \text{ of total population} = \frac{5}{100} \times 15000 = 750$$

$$\text{Total population} = 15000 + 750$$

$$\text{After one year} = 15750 \quad \text{Ans}$$

Q.5 Rahila pays 5 % of her salary in charity in a month. If she pays Rs. 200. Find her monthly salary.

Solution:

$$\text{Percent of salary} = 5 \%$$

$$= 5 \% \div 200$$

$$= \frac{5}{100} \div 200$$

$$= \frac{100}{5} \times 200 = 4000$$

$$\text{Salary} = 4000 \text{ Rs.} \quad \text{Ans}$$

Q.6 The 18% of the distance between two cities is 36 km. Find the distance between two cities.

Solution:

$$\text{The distance percent} = 18 \%$$

$$\text{Distance between cities} = 36 \text{ km}$$

$$\text{Required Distance} = 18 \% \div 36 = \frac{18}{100} \div 36$$

$$= \frac{100}{18} \times 36 = 200 \text{ km}$$

$$\text{Distance b/w cities} = 200 \text{ km} \quad \text{Ans}$$

Q.7 Naeem's monthly income is Rs. 8000 and he spends Rs. 6000 per month. Find the percentage of his expenditure.

Solution:

Monthly Income = 8000 Rs.

Monthly Expenditure = 6000 Rs.

$$\begin{aligned}\text{Percentage} &= \frac{6000}{8000} \times 100 \% \\ &= 75 \% \quad \text{Ans}\end{aligned}$$

Q.8 On a rainy day 600 students out of 750 were present in a school. What percentage of the students were absent.

Solution:

Total number of students = 750

Present students = 600

Absent students = $750 - 600 = 150$

$$\begin{aligned}\% \text{ of absent students} &= \frac{150}{750} \times 100 \\ &= 20 \% \quad \text{Ans}\end{aligned}$$

Q.9. If one angle of a triangle is 90° . Find the two angles if these angles are 30% and 70% of 90° , respectively.

Solution:

$$\begin{aligned}\text{First angle} &= 30\% \text{ of } 90^\circ \\ &= \frac{3}{100} \times 90 = 27^\circ\end{aligned}$$

$$\begin{aligned}\text{Second angle} &= 70\% \text{ of } 90^\circ \\ &= \frac{70}{100} \times 90 = 63^\circ \\ &= 27^\circ \text{ and } 63^\circ \quad \text{Ans}\end{aligned}$$

Q.10 Area of square is 100 Sq. cm find the area of a rectangle whose area is 10% more than the area of given square.

Solution:

$$\begin{aligned}\text{Total area of square} &= 100 \\ \text{Percentage of area square} &= 10\% = \frac{10}{100} \times 100 \\ &= 10 \\ \text{Area of Rectangle} &= 100 + 10 \\ &= 110 \text{ Sq. m} \quad \text{Ans}\end{aligned}$$

Q.11 In a shop there is a double discount of 10% and 20% on an article having price of Rs. 100. Calculate the total discount.

Solution:

$$\begin{aligned}1^{\text{st}} \text{ discount} &= 10\% \\ 2^{\text{nd}} \text{ discount} &= 20\% \\ \text{Total discount} &= 20 + 10 = 30\% \\ \text{Total price article} &= 100 - 30 = 70 \text{ Rs.} \\ \text{Discount} &= 20\% \times 70 \\ &= \frac{20}{100} \times 70 = 14 \text{ Rs.} \\ \text{Total discount of} &= 14 \times 2 = 28 \\ &= \text{Rs. 28} \quad \text{Ans}\end{aligned}$$

EXERCISE 7.3

Q.1. Find the profit or loss percent in the following:

- (i) Eggs are purchased at Rs. 120 per dozen and sold out at Rs. 130 per dozen.

Solution:

$$\begin{aligned}CP &= \text{Rs. 120} \\ SP &= \text{Rs. 130} \\ SP - CP &= \text{Profit} \\ 130 - 120 &= 10 \text{ Rs.} \\ \text{Profit Percent} &= \frac{\text{Profit}}{CP} \times 100\%\end{aligned}$$

$$= \frac{10}{120} \times 100$$

$$= \frac{25}{3}$$

Percent Profit = Profit $\frac{25}{3}$ % Ans

- (ii) A shopkeeper purchases 25 breads at Rs. 10 per bread. He sells breads at Rs. 13 bread as 7 breads are spoiled.

Solution:

C.P. = Rs. = $10 \times 25 = 250$ Rs.

S.P. = $18 \times 13 = 235$ Rs.

$\therefore$ CP = Rs. = 250

SP = Rs. = 234

loss = CP - SP

$250 - 234 = \text{Rs. } 16$

Loss percent = $\frac{\text{Loss}}{\text{CP}} \times 100 \%$

$= \frac{16}{250} \times 100$

Percent Loss = $\frac{32}{5}$ % Ans

- (iii) A man purchases 10 dozen eggs at the rate of Rs. 120 per dozen 3 dozen eggs are brokes. Rest of the eggs are sold at the rate of Rs. 130 per dozen.

Solution:

One dozen eggs = Rs. 120

3 dozen eggs are broken reaming eggs are $10 - 3$
= 7 dozen

$\therefore$ CP = Rs. 1200

SP = $7 \times 130 = \text{Rs. } 910$

$\therefore$ SP < CP = loss

Loss = CP - SP =

$$1200 - 910 = 290 \rightarrow \text{loss percent } \frac{\text{loss}}{\text{CP}} \times 100 \%$$

$$\frac{290}{1200} \times 100 = \frac{145}{6}$$

$$\text{Ans: loss} = \frac{145}{6} \%$$

- (iv) A man purchases pencils at Rs 60 per dozen and sells at Rs. 70 per dozen.

Solution:

Cost price of pencils = 60 Rs.

Selling Price of pencils = 70 Rs.

Profit = S.P. - C.P.

$$= 70 - 60$$

$$= 10 \text{ Rs.}$$

$$\text{Profit percent} = \frac{10}{60} \times 100 = \frac{50}{3}$$

$$\text{Percent} = \frac{50}{3} \% \quad \text{Ans}$$

- (v) A milkman purchases milk at the rate of 75.50 per litre and sells at the rate of Rs. 80 per liter.

Solution:

Cost Price of milk = Rs. 75.50

Selling Price of milk = Rs. 80

Profit = SP - CP

$$= 80 - 75.50$$

$$= 4.50 \text{ Rs.}$$

$$\text{Percent profit} = \frac{4.50}{75.5} \times 100$$

$$= \frac{450}{75.5} \%$$

$$= 5.96 \% \quad \text{Ans}$$

Q.2 A book seller purchases 20 books of mathematics at Rs. 120 and sells at Rs. 125 per book. Find his profit and profit percent.

Solution:

$$\text{Total Cost Price} = 20 \times 120 = 2400$$

$$\text{Total Selling Price} = 20 \times 125 = 2500$$

$$\text{Profit percent} = \frac{100}{2400} \times 100 = \frac{25}{6} \%$$

$$= \frac{25}{6} \% \quad \text{Ans}$$

Q.3 A grocer purchases 10 kilograms of rice at 120 per kilogram and sells at Rs. 125 per kilogram. Find profit percent.

Solution:

$$\text{Total Cost Price} = 10 \times 120 = 1200 \text{ Rs.}$$

$$\text{Total Selling Price} = 10 \times 125 = 1250 \text{ Rs.}$$

$$\begin{aligned} \text{Profit} &= \text{S.P.} - \text{C.P.} \\ &= 1250 - 1200 \\ &= 50 \text{ Rs.} \end{aligned}$$

$$\text{Profit percent} = \frac{50}{1200} \times 100$$

$$\text{Profit percent} = \frac{25}{6} \% \quad \text{Ans}$$

Q.4 A shopkeeper bears 15% loss on the sale of jacket. If the cost of the jacket is Rs. 1000 find his loss.

Solution:

$$\text{CP} = 1000$$

$$\text{Rate of Loss} = 15 \%$$

$$= 15 \% \times \text{Rs. } 1000$$

$$= \frac{15}{100} \times 1000$$

$$= 150 \quad \text{Ans}$$

Q.5 Umaima bought a dinner set for 52000 at 20 % discount. Find the actual price of the dinner set.

Solution:

$$\begin{aligned}\text{CP} &= 52000 \text{ Rs.} \\ \text{Rate of Discount} &= 20\% \\ &= \frac{20}{100} \times 52000 = 10400 \\ \text{Actual Price} &= 52000 + 10400 \\ &= 62400 \quad \text{Ans}\end{aligned}$$

Q.6 The market price of ladies purse is 1500 and it is sold at discount of 15% find net selling price the purse.

Solution:

$$\begin{aligned}\text{Actual Price} &= 1500 \\ \text{Discount} &= 15\% \\ &= \frac{15}{100} \times 1500 \\ &= \text{Rs. } 225 \\ \text{Net selling price} &= 1500 - 225 \\ &= 1275 \quad \text{Ans}\end{aligned}$$

REVIEW EXERCISE 7

Q.1 Karim bought 50 dozen of pencils at Rs. 60 per dozen. He sold them at Rs. 13 per pencil. Find profit or loss percent.

Solution:

$$\begin{aligned}\text{Total cost price} &= 50 \times 60 = 3000 \text{ Rs.} \\ \text{Purchase price of one pencil} &= 3000 \div 600 \\ &= 5 \text{ Rs.} \\ \text{Selling price of one pencil} &= 13 \text{ Rs.} \\ \text{Profit of each pencil} &= 13 - 5 = 8 \text{ Rs.}\end{aligned}$$

$$\text{Profit of 600 Pencils} = 600 \times 8 = 4800 \text{ Rs.}$$

$$\begin{aligned} \text{Profit} &= \text{SP} - \text{CP} \\ &= 4800 - 3000 \\ &= 1800 \text{ Rs.} \end{aligned}$$

$$\begin{aligned} \text{Profit percent} &= \frac{4800}{3000} \times 100 = 160 \\ &= 160 \% \quad \text{Ans} \end{aligned}$$

Q.2 A television (T.V) manufacturing company declares that a colour T.V is now available for Rs. 13050, its previous price was Rs. 17400. Find the percentage reduction in the price of colour T.V offered by the company.

Solution:

$$\begin{aligned} \text{Previous Price} &= 17400 \text{ Rs.} \\ \text{Present Price} &= 13050 \text{ Rs.} \\ \text{Discount} &= 17400 - 13050 \\ &= 4350 \text{ Rs.} \\ \text{Percentage} &= \frac{4350}{17400} \times 100 \\ &= \frac{4350}{174} \% \\ &= 25 \% \quad \text{Ans} \end{aligned}$$

Q.3 Imran obtained 548 markout of 800 and his sister obtained 459 out of 600. Whose performance is better?

Solution:

$$\begin{aligned} \text{Imran's marks} &= \frac{548}{800} \\ \text{Performance persantage} &= \frac{548}{800} \times 100 \\ &= 68.5 \% \end{aligned}$$

$$\begin{array}{r} 68.5 \\ 8 \overline{)548} \\ \underline{48} \\ 68 \\ \underline{64} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

$$\begin{aligned} \text{Sister's marks} &= \frac{459}{600} \end{aligned}$$

$$\begin{aligned} \text{Performance percentage} &= \frac{459}{600} \times 100 && \begin{array}{r} 76.5 \\ 6 \overline{)459} \\ \underline{42} \\ 39 \\ \underline{36} \\ 30 \\ \underline{30} \\ 0 \end{array} \\ &= 76.5\% \\ \text{Imran} &= 68.5\%, \text{ sister} = 76.5\% \\ \text{Sister performance better} &&& \text{Ans} \end{aligned}$$

Q.4 Fruit seller purchases 50 Dozen bananas at the rate of Rs. 60 per dozen. 10 dozen bananas are supplied. Rest of the bananas are sold at rate of Rs. 70 per dozen. Find his gain or loss percent.

Solution:

$$\begin{aligned} \text{Cost Price} &= 600 \times 60 = \text{Rs. } 36000 \\ \text{Selling Price} &= 480 \times 70 = \text{Rs. } 33600 \\ \text{CP} - \text{SP} &= \text{loss} \\ 36000 - 33600 &= 2400 \text{ Rs.} \end{aligned}$$

$$\begin{aligned} \text{Loss percentage} &= \frac{2400}{36000} \times 100 \\ &= \frac{20}{3} \% \quad \text{Ans} \end{aligned}$$

Q.5 A car was sold at price of Rs. 875,000 with a discount of $2\frac{1}{2}\%$ what is actual cost of the car?

Solution:

$$\begin{aligned} \text{Rate of Discount} &= 2\frac{1}{2} = \frac{5}{2} = 2.5\% \\ \text{Actual Price} &= 2.5\% \times \text{Rs. } 875,000 \\ &= \frac{2.5}{100} \times 875,000 = 897435.80 \\ \text{Actual cost of car} &= 897435.80 \text{ Rs.} \quad \text{Ans} \end{aligned}$$

Q.6. Which is greater?

(i) **0.045 or 50 %**

Solution

= 5 % is greater

(ii) **0.64 or 62 %**

Solution

= 0.64 % is greater

(iii) **0.8 or 8 %**

Solution

= 0.8 is greater

(iv) **0.15 or 19 %**

Solution

= 19 % is greater

(v) **$\frac{1}{2}$ or 40 %**

Solution

= $\frac{1}{2}$ is greater

(vi) **$\frac{1}{5}$ or 25 %**

Solution

= 25 % is greater

(vii) **$\frac{3}{4}$ or 70 %**

Solution

= $\frac{3}{4}$ is greater

(viii) **$1\frac{1}{4}$ or 130 %**

Solution

= 130 % is greater

(ix) $\frac{1}{10}$ or 9 %

Solution

$\frac{1}{10}$ is greater

Q.7 (a) Fill in the blanks:

(i) $\frac{3}{4} = \underline{75} \%$.

(ii) $\frac{5}{8} = \underline{62.5} \%$.

(iii) $30 \% = \frac{3}{10}$ (fraction)

(iv) $0.125 = \underline{12.5} \%$.

(v) $38 \% = \underline{0.38}$ (decimal)

(vi) $36 \% \text{ of } 120 = \underline{43.2}$.

(vii) $S.P + \text{Loss} = \underline{C.P.}$.

(viii) $S.P - C.P = \underline{\text{Profit}}$.

(b) Write true (T) or false (F) for the following:

(i) If $S.P < C.P$ so, there is gain. (False)

(ii) If $C.P > S.P$ so, there is loss. (True)

(iii) $\text{Loss} = C.P - S.P$. (True)

(iv) $S.P + \text{gain} = C.P$. (False)

(v) $\text{Loss \%} = \frac{\text{Loss}}{S.P} \times 100 \%$. (False)

(vi) $\text{Profit} = S.P - C.P$. (True)

(vii) $\frac{\text{Profit} \times 100 \%}{C.P} = \text{Profit \%}$. (True)

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