

NCERT SOLUTIONS OF comparing quantities Exercise 1

Question 1

Find the ratio of the following.

- (a) Speed of a cycle 15 km per hour to the speed of scooter 30 km per hour.
- (b) 5 m to 10 km
- (c) 50 paise to Rs 5

Answer

a)

Required ratio = $15/30 = 1/2 = 1:2$

b) Require ratio = $5\text{m}/10\text{ km}$

= $5\text{m}/10 \times 1000\text{m} = 1/2000 = 1:2000$

c)

Require ratio = $50\text{paise}/\text{Rs } 5$

= $50\text{paise}/500\text{ paise} = 1/10 = 1:10$

Question 2

Convert the following ratios to percentages.

(a) 3 : 4

(b) 2 : 3

Answer:

a) $3:4 = 3/4$

% can be find by multiplying 100
So % = $(\frac{3}{4}) \times 100 = 75\%$

b) $2:3 = \frac{2}{3}$
% can be find by multiplying 100

So % = $(\frac{2}{3}) \times 100 = (\frac{200}{3})\% = 66\frac{2}{3}\%$

Question 3

72% of 25 students are good in mathematics. How many are not good in mathematics?

Answer

Percentage of Students not good in math = $100 - 72 = 28$

So No of students not good in Mathematics

= 28% of 25 = $28 \times (\frac{25}{100}) = 7$

Question 4

A football team won 10 matches out of the total number of matches they played. If their win percentage was 40, then how many matches did they play in all?

Answer

Let us assume total number of matches = y

Then % of matches win = $(\frac{10}{y}) \times 100$

Now it is given % of matches win = 40

So

$40 = (\frac{10}{y}) \times 100$

$$y = (10/40) \times 100 = 25$$

Question 5

If Chameli had Rs 600 left after spending 75% of her money, how much did she have in the beginning?

Answer: Money left after spending 75% = $100 - 75 = 25\%$

Let us assume total money = y

Then 25% of $y = 600$

$$25 \times (y/100) = 600$$

$$y = 2400$$

Chameli had Rs. 2,400 in the beginning

Question 6

If 60% people in a city like cricket, 30% like football and the remaining like other games, then what per cent of the people like other games? If the total number of people are 50 lakh, find the exact number who like each type of game.

Answer

% of Cricket Fans = 60%

% of Football Fans = 30%

So, Other Sports' Fans = $100 - (60 + 30) = 10\%$ people like other games.

Now it is given total number of population is 50 Lakh = 50,00,000

So Number of cricket fan

$$= 50,00,000 \times (60/100) = 30,00,000 = 30 \text{ Lakh}$$

So Number of Football fan

$$= 50,00,000 \times (30/100) = 15,00,000 = 15 \text{ Lakh}$$

So Number of other games fan

$$= 50,00,000 \times (10/100) = 5,00,000 = 5 \text{ Lakh}$$

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