

RD Sharma
Solutions

Class 7

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Chapter-10Unitary MethodExercise 10.1

Q.1 20 Chocolates costs Rs. 320. Find the cost of 35 such Chocolates.

Solution: $\therefore$ Cost of 20 chocolates = Rs. 320

then Cost of 1 Chocolate = Rs. $\frac{320}{20}$ = Rs. 16

hence Cost of 35 Chocolates = 35×16 = Rs 560

Q.2 The cost of 40 metres of cloth is Rs. 200. Find the cost of 50 metres of cloth.

Solution: $\therefore$ Cost of 40 metres of cloth = Rs. 200

Then Cost of 1 metre of cloth = Rs. $\frac{200}{40}$ = Rs. 5

$\therefore$ Cost of 50 m cloth = Rs 50×5
= Rs. 250.

③ A Car can cover a distance of 522 Km on 36 litres of petrol. How far can it travel on 14 litres of petrol.

Solution:

In 36 litres of petrol, a car can cover = 522 km

In one litre of petrol, car can cover

$$= \frac{522}{36} =$$

Hence, the number of kilometres a car can cover

$$\text{in 14 litres} = \frac{522}{36} \times 14 \text{ km} \\ = 203 \text{ km}$$

Q.4 Travelling 900 km by rail costs Rs 280. What would be the fare for a journey of 360 km when a person travels by the same class?

Solution: Cost of travelling 900 km = Rs. 280

Therefore, Cost of travelling 1 km = Rs. $\frac{280}{900}$

Hence, Cost of travelling 360 km by a rail = Rs. $\frac{280}{900} \times 360$

$$= \text{Rs. } 112$$

Q.5 If 6 oil tankers can be filled by a pipe in $4\frac{1}{2}$ hours. How long does the pipe take to fill 4 such oil tankers?

(3)

Solution: Time taken to fill 6 oil tankers = $4\frac{1}{2}$ hours
 $= \frac{9}{2}$ hours

$$\therefore \text{Time taken to fill 1 oil tanker} = \frac{9}{2 \times 6} = \frac{9}{12} \text{ hours}$$

$$\text{Thus, Time taken to fill 4 oil tankers} = \frac{9}{12} \times 4 = 3 \text{ hours.}$$

Q6 $\frac{3}{4}$ of the salary per month is Rs. 600. What is the salary per month?

Solution: Let salary per month = x

$$\therefore \frac{3}{4}x = 600$$

$$\Rightarrow x = \frac{600 \times 4}{3} = \text{Rs. } 800.$$

Q7 The cost of 32 tables is Rs. 23520. Find the number of such tables that can be purchased for Rs. 51450.

Solution: Number of tables bought for Rs. 23520 = 32

$$\therefore \text{number of tables bought for Rs. 1} = \frac{32}{23520}$$

$$\text{Hence number of tables bought for Rs. 51450} = \frac{32}{23520} \times 51450 = 70 \text{ tables}$$

Q.8 The yield of wheat from 6 hectares is 280 quintals. Find the number of hectares required for a yield of 225 quintals.

Solution: The area required for 280 quintals yield of wheat = 6 hectares.

$\therefore$ Area required for 1 quintal yield = $\frac{6}{280}$ hectares.

Therefore Area required for 225 quintals = $\frac{6}{280} \times 225$
 $= \frac{135}{28} = 4\frac{23}{28}$ hectares

Q.9 Fifteen post cards cost Rs. 2.25, what will be the cost of 36 post cards? How many post cards can we buy in Rs. 45?

Solution: Cost of 15 post cards = Rs 2.25

$\therefore$ Cost of 1 Post card = Rs $\frac{2.25}{15} = \text{Rs } 0.15$

Therefore cost of 36 post cards = Rs 36×0.15
 $= \text{Rs } 5.40$

Also $\therefore$ No. of post cards can be purchased in 1 Rupee
 $= \frac{15}{2.25}$

$\therefore$ No. of post cards can be purchased in Rs. 45
 $= \frac{15}{2.25} \times 45 = 300$

Q.10 A said journey of 75 km costs Rs 215. How much will a journey of 120 km cost?

Solution: $\therefore$ Cost of 75 km journey = Rs 215

Therefore Cost of 1 km journey = Rs $\frac{215}{75} = \frac{43}{15}$

Hence Cost of 120 km journey = $\frac{43}{15} \times 120 = \text{Rs } 344$

Q.11 If the sales tax on a purchase worth Rs 60 is Rs 4.20. What will be the sales tax on the purchase worth Rs 150.?

Solution: Sales tax on a purchase of Rs 60 = Rs 4.20

$\therefore$ Sales tax on a purchase of Rs 1 = Rs $\frac{4.20}{60}$

Therefore sales tax on the purchase of Rs 150

$$= \frac{4.20}{60} \times 150$$

$$= \text{Rs } 10.50$$

Q.6 52 packets of 12 Pencils each, cost Rs 499.20. Find the cost of 65 packets of 10 pencils each.

Solution: 52 packets of 12 pencils each
 $= 52 \times 12 = 624$ pencils

also, 65 packets of 10 pencils = $65 \times 10 = 650$ pencils.

Cost of 624 pencils = Rs 499.20

Cost of 1 pencil = Rs $\frac{499.20}{624}$

Therefore cost of 650 pencils = Rs $\frac{499.20}{624} \times 650$

= Rs 520

Cost of 1 pencil = Rs $\frac{499.20}{624}$

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