Question 1.

If the cost of 9 m cloth is ₹378, find the cost of 4 m cloth.

Solution:

∵ Cost of 9 m of cloth = ₹378

∴ Cost of 1 m of cloth = ₹$\frac{378}{9}$ = ₹42

∴ Cost of 4 m cloth = ₹42 × 4 = ₹168

Question 2.

The weight of 36 books is 12 kg. What is weight of 75 such books?

Solution:

∵ Weight of 36 books = 12 kg

∴ Weight of 1 book = $\frac{128}{36}$ kg = $\frac{1}{3}$ kg

∴ Weight of 75 books = $\frac{1}{3}$ × 75 = 25 kg

Question 3.

Five pens cost ₹115. How many pens can you buy in ₹207?

Solution:

₹115 is cost of 5 pens 5

₹ 1 is cost of = $\frac{5}{115}$ pens

∴ ₹207 is cost of

$= \frac{207 \times 5}{115} = \frac{207}{23} = 9$ pens

Question 4.

A car consumes 8 litres of petrol in covering a distance of 100 km. How many kilometres will it travel in 26 litres of petrol?

Solution:

8 litre of petrol consumes for = 100 km

Then 26 litre of petrol consumes for

$\frac{26 \times 100}{8} = \frac{1300}{4} = 325 km$

Question 5.

A truck requires 108 litres of diesel for covering a distance of 594 km. How much diesel will be required by the truck to cover a distance of 1650 km?

Solution:

∵ Diesel required for covering a distance of 594 km = 108 litres

∴ Diesel required for covering a distance of 1 km = $\frac{108}{594}$ litre

∴ Diesel required for covering a distance of 1650 km

$= \frac{108}{594} \times 1650$ litres

$= \frac{2}{11} \times 1650 = 2 \times 150 = 300$ litres

Hence, 300 litres of diesel will be required by the truck to cover a distance of 1650km.

Question 6.

A transport company charges ₹5400 to carry 80 quintals of weight. What will it charge to carry 126 quintals of weight (same distance)?

Solution:

Charges of 80 quintals of weight = ₹5400

∴ Charges of 1 quintal = ₹$\frac{5400}{80}$

and charges of 126 quintals

= ₹$\frac{5400 \times 126}{80}$ = $\frac{135 \times 126}{2}$

= 135 × 63 = ₹8505

Question 7.

42 metres of cloth is required to make 20 shirts of the same size. How much cloth will be required to make 36 shirts of that size?

Solution:

For 20 shirts cloth required = 42 m

∴ Cloth required for making 1 shirt = $\frac{42}{20}$ m

∴ For 36 shirts cloth required will be

= $\frac{42 \times 36}{20}$ = $\frac{18 \times 42}{10}$ = $\frac{176}{10}$ = 75.6m

Question 8.

Cost of 5 kg of rice is ₹107.50.

(i) What will be the cost of 8 kg of rice?

(ii) What quantity of rice can be purchased in ₹64.5?

Solution:

(i) Cost of 5 kg of rice = ₹107.50

∴ Cost of 1 kg of rice = ₹$\frac{107.50}{5}$ = ₹21.5

∴ Cost of 8 kg of rice = ₹21.5 × 8 = ₹172

(ii) ∵ In ₹107.50, the quantity of rice that can be purchased = 5 kg

∴ In ₹1, the quantity of rice that can be phased = $\frac{5}{107.50} \times 54.5$ kg

∴ In ₹64.5, the quantity of rice that can be purchased

$= \frac{5}{107.50} \times 54.5$

$= \frac{5}{10750} \times 100 \times \frac{545}{10} = 3kg$

Question 9.

Cost of 4 dozen bananas is ₹ 180. How many bananas can be purchased for ₹37.50?

Solution:

1 dozen contains = 12 items

∴ 4 dozens contains =12 x 4 items = 48 items

Cost of 4 dozen bananas = ₹180

That means cost of 48 bananas = ₹180

∴ Number of bananas that can be purchased for ₹1

$= \frac{48}{180}$

∴ Number of bananas that can be purchased for ₹37.50

$= \frac{48}{180} \times 37.50 = \frac{48}{180} \times \frac{3750}{100} = 10$

Question 10.

Aman purchases 12 pens for ₹156 and Payush buys 9 pens for ₹1108. Can you say who got the pens cheaper?

Solution:

For Aman

∵ Cost of 12 pens = ₹156

∴ Cost of 1 pen = ₹ $\frac{156}{12}$ = ₹ 13

For Payush

∴ Cost of 9 pens = ₹108

∴ Cost of 1 pen = ₹$\frac{108}{9}$ = ₹12

So, Payush got the pens cheaper.

Question 11.

Rohit made 42 runs in 6 overs and Virat made 63 runs in 7 overs. Who made more runs per over?

Solution:

For Rohit

∵ Runs made in 6 overs = 42

∴ Runs made per over = $\frac{42}{6}$ = 7

For Virat

∵ Runs made in 7 overs = 63

∴ Runs made per over = $\frac{63}{7}$ = 9

So, Virat made more runs per over.

Question 12.

A bus travels 160 km in 4 hours and a train travels 320 km in 5 hours at uniform speeds, then find the ratio of the distance travelled by them in one hour.

Solution:

A bus travel in 4 hours = 160 km

∴ Distance covered by bus in 1 hour

= $\frac{160}{4}$ = 40 km

A train travel in 5 hours = 320 km

∴ Distance covered by train in 1 hour

= $\frac{320}{5}$ km = 64km

Ratio in their speed = 40 : 64 = 5 : 8