Question:1

20 chocolates cost Rs 320. Find the cost of 35 such chocolates.

Solution:

Cost of 20 chocolates = Rs. 320

Cost of 1 chocolate = Rs. 320 ÷ 20 = 16

So, cost of 35 chocolates = 35 × 16 = Rs. 560

Question:2

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

Solution:

Cost of 40 metres of cloth = Rs. 200

Therefore, cost of 1 metre of cloth = Rs. $200 \div 40 = \text{Rs. } 5$

Hence, cost of 50 metres of cloth = Rs. 550 = Rs. 250

Question: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:

Distance covered by the car on 36 litres = 522 km

Distance covered by the car on 1 litre = 522 ÷ 36

Distance covered by the car on 14 litres = $522 \div 36 \times 14$ = 203 km

Question: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:

Fare for 900 km of rail travel = Rs. 280

Fare for 1 km = Rs. 280 ÷ 900

Therefore, fare for 360 km = $280 \div 900 \times 360$ = Rs. 112

Question:5

If 6 oil tankers can be filled by a pipe in 4 $1/2$ hours, how long does the pipe take to fill 4 such oil tankers?

Solution:

Time taken by the pipe to fill 6 oil tankers = 4 1/2 = 9/2 hours

Time taken to fill 1 oil tanker = $\frac{9}{2} \times \frac{1}{6} = \frac{3}{4} \text{hours}$

Therefore, the pipe will be able to fill 4 oil tankers in $\frac{3}{4} \times 4 = 3 \text{ hours}.$

Question:6

3/4 of the salary per month is Rs 600. What is the salary per month?

Solution:

Let the salary be Rs. x.

Then, 3/4 of the salary per month = Rs. 600.

That is, $3/4\,x = 600$

$\Rightarrow x = 4 \times 600 \div 3$ = Rs. 800

So, the salary = Rs. 800.

Question:7

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

Solution:

With Rs. 23520, we can buy 32 tables.

Therefore, with Re. 1, we can buy $\frac{32}{23520}$ tables.

Hence, the number of tables that we can purchase with Rs. 51450 = $\frac{2}{23520} \times 51450 = 70$.

Question:8

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

Solution:

Yield of wheat from 6 hectares = 280 quintals

Yield of wheat from 1 hectare = 280 ÷ 6 = 46.66 quintals

Number of hectares required for a yield of 225 quintals = 225 ÷ 46.66 = 4.8 hectares

So, 4.8 hectares is required for a yield of 225 quintals.

Question:9

Fifteen post cards cost Rs 2.25. What will be the cost of 36 post cards? How many postcards can we buy in Rs 45?

Solution:

Cost of 15 postcards = Rs. 2.25

Cost of 1 postcard = Rs. 2.25 ÷ 15 = Rs. 0.15

Cost of 36 postcards = 36 × $2.25 \div 15$ = Rs. 5.4

Number of postcards that can be bought for Rs. 45 = 45 ÷ 0.15 = 300

Question:10

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

Solution:

Fare for a rail journey of 75 km = Rs. 215

Fare for 1 km = Rs. 215 ÷ 75 = Rs. 2.86

Fare for 120 km = Rs. 120 × 2.86 = Rs. 343.2

Question:11

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

Solution:

Sales tax on purchase worth Rs. 60 = Rs. 4.20

Sales tax on purchase worth Re. 1 = 4.20 ÷ 60

Therefore, sales tax on purchase worth Rs. 150 = Rs. 150 × $4.20 \div 60$ = Rs. 10.5.

Question:12

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

Solution:

Cost of 52 packets of 12 pencils each = Rs. 499.20

Cost of 1 packet of 12 pencils = Rs. 499.20 ÷ 52 = Rs. 9.6

Therefore, cost of 12 pencils = Rs. 9.6

So, cost of 1 pencil = Rs. 9.6 ÷ 12 = Rs. 0.8

Cost of 10 pencils = Rs. 10 × $9.6 \div 12$ = Rs. 8

Therefore, cost of 1 packet of 10 pencils each = Rs. 8

Hence, cost of 65 packets of 10 pencils each = 65 × Rs. 8 = Rs. 520

Question:13

Mark the correct alternative in the following question:

What distance inm will a train cover in 1 minute travelling at 72 km/hr?

a 120 b 1200 c 1400 d 720

Solution:

$\text{As, the speed of the train} = 72 \text{ km/hr} \Rightarrow \text{The distance covered in 1 hr (60 min)} = 72 \text{ km} \therefore \text{The distance covered in 1 min} = \frac{72}{60} \text{ km} = \frac{6}{5} \text{ km} = \frac{6}{5} \times$

Hence, the correct alternative is option b.

Question:14

Mark the correct alternative in the following question:

If the cost of 15 mangoes is 180, then what is the cost of 25 mangoes?

a 220 b 360 c 200 d 300

Solution:

As, the cost of 15 mangoes = 180

⇒ The cost of 1 mango = $\frac{180}{15}$ = 12

So, the cost of 25 mangoes = 25 × 12 = 300

Hence, the correct alternative is option d.

Question:15

Mark the correct alternative in the following question:

If the cost of 25 pencils is 75, then the cost of 75 pencils is

a 225 b 150 c 180 d 100

Solution:

As, the cost of 25 pencils = 75

⇒ The cost of 1 pencil = $\frac{75}{25}$ = 3

So, the cost of 75 pencils = 3 × 75 = 225

Hence, the correct alternative is option a.

Question:16

Mark the correct alternative in the following question:

The cost of 30 mangoes is less then cost of 40 mangoes by 50. Find the cost of 50 mangoes in ( )

a 400 b 300 c 250 d 350

Solution:

As, the cost of 30 mangoes is less than the cost of 40 mangoes by = 50

⇒ The cost of 10 mangoes = 50

⇒ The cost of 1 mango = $\frac{50}{10}$ = 5

So, the cost of 50 mangoes = 5 × 50 = 250

Hence, the correct alternative is option c.

Question:17

Mark the correct alternative in the following question:

45 cows can graze a field in 12 days. How many cows will graze the same field in 9 days?

a 60 cows b $38\frac{3}{4}$ cows c 54 cows d 45 cows

Solution:

As, the number of cows that can graze the field in 12 days = 45

⇒ The number of cows that can graze the field in 1 days = 45 × 12 = 540

So, the number of cows that can graze the field in 9 days = $\frac{540}{9}$ = 60 cows

Hence, the correct alternative is option a.

Note: This is a situation of inverse variation. More the number of cows, the faster will they graze the field.

The options given in the book are incorrect. The same has been corrected here.

Question:18

Mark the correct alternative in the following question:

If $\frac{4}{5}$ of a water tank is filled in 1 hour, then how much time will be required to fill the rest of it?

a 20 minutes b 15 minutes c 12 minutes d 10 minutes

Solution:

As, the time taken to fill $\frac{4}{5}$ of the water tank = 1 hr = 60 min

⇒ The time taken to fill the water tank = 60 × $\frac{5}{4}$ = 15 × 5 = 75 min

So, the time required to fill the rest of the water tank = 75 – 60 = 15 min

Hence, the correct alternative is option b.

Question:19

Mark the correct alternative in the following question:

A worker makes a toy every $\frac{2}{3}$ hour. If he works for 7 $\frac{1}{3}$ hours, then how many toys will he make?

a 11 b 16 c 18 d 22

Solution:

As, the number of toys made by the worker in $\frac{2}{3}$ hour = 1

⇒ The number of toys made by him in 1 hour = $1 \times \frac{3}{2} = \frac{3}{2}$

So, the number of toys made by the worker in 7 $\frac{1}{3}$ $\left(\frac{22}{3}\right)$ hours = $\frac{3}{2} \times \frac{22}{3}$ = 11

Hence, the correct alternative is option a.

Question:20

Mark the correct alternative in the following question:

6 dozen eggs are bought for 108. How much will 108 eggs cost?

a 171 b 162 c 153 d 180

Solution:

As, the cost of 6 dozen eggs (6 × 12 = 72 eggs) = 108

⇒ The cost of 1 egg = $\frac{108}{72} = \frac{3}{2}$

So, the cost of 108 eggs = $\frac{3}{2} \times 108 = 3 \times 54$ = 162

Hence, the correct alternative is option b.

Question:21

Mark the correct alternative in the following question:

8 men can finish a piece of work in 40 days. If 2 more men join them, then the work will be computed in

a 30 days b 32 days c 36 days d 25 days

Solution:

As, the number of days computed by 8 men to finish the piece of work = 40 days

⇒ The number of days computed by 1 man to finish the piece of work = 40 × 8 = 320 days

So, the number of days computed by 10 men to finish the piece of work = $\frac{320}{10}$ = 32 days

Hence, the correct alternative is option b.

Note: This is the case of inverse variation. More men needs less time to finish the same work.

Question:22

Mark the correct alternative in the following question:

If 21 cows eat as much as 15 buffaloes, then how many cows will eat as much as 35 buffaloes?

a 45 b 49 c 56 d 54

Solution:

As, the number of cows that eat as much as 15 buffaloes = 21

⇒ The number of cows that eat as much as 1 buffalo = $\frac{21}{15} = \frac{7}{5}$

So, the number of cows that eat as much as 35 buffaloes = $\frac{7}{5} \times 35$ = 7 × 7 = 49

Hence, the correct alternative is option b.

Question:23

Mark the correct alternative in the following question:

If 6 bowls cost 90, then the cost of 10 such bowls is

a 125 b 175 c 150 d 120

Solution:

As, the cost of 6 bowls = 90

⇒ The cost of 1 bowl = $\frac{90}{6}$ = 15

So, the cost of 10 bowls = 15 × 10 = 150

Hence, the correct alternative is option c.

Question:24

Mark the correct alternative in the following question:

A car can go 150 km with 25 litres of petrol. How for can it go with 30 litres of petrol?

a 180 km b 150 km c 210 km d 160 km

Solution:

As, the distance travelled by the car with 25 litres of petrol = 150 km

⇒ The distance travelled by the car with 1 litre of petrol = $\frac{150}{25}$ = 6 km

So, the distance travelled by the car with 30 litres of petrol = 6 × 30 = 180 km

Hence, the correct alternative is option a.

Question:25

Mark the correct alternative in the following question:

If the cost of 12 books is 144, then the cost of 18 books is

a 206 b 216 c 198 d 180

Solution:

As, the cost of 12 books = 144

⇒ The cost of 1 book = $\frac{144}{12}$ = 12

So, the cost of 18 books = 12 × 18 = 216

Hence, the correct alternative is option b.

Question:26

Mark the correct alternative in the following question:

If a person travels 150 km in 5 hours, then the time taken by him to travel 180 km is

a 3 hours b 4 hours c 8 hours d 6 hours

Solution:

As, the time taken by the person to travel 150 km = 5 hours

⇒ The time taken by him to travel 1 km = $\frac{5}{150} = \frac{1}{30}$ hours

So, the time taken by him to travel 180 km = $\frac{1}{30} \times 180$ = 6 hours

Hence, the correct alternative is option d.

Question:27

Mark the correct alternative in the following question:

If a person travels 60 km in 4 hours in a car, then the speed of the car is

a 12 km/hr b 15 km/hr c 20 km/hr d 24 km/hr

Solution:

As, the distance travelled by the car in 4 hours = 60 km

⇒ The distance travelled by the car in 1 hour = $\frac{60}{4}$ = 15 km

So, the speed of the car is 15 km/hr.

Hence, the correct alternative is option b.