NCERT SOLUTIONS FOR CLASS 6 MATHS RATIOS AND PROPORTIONS EXERCISE 12.3

Exercise 12.3

Question 1:

If the cost of 7 m of cloth is Rs 294, find the cost of 5 m of cloth.

Answer:

Cost of 7 m cloth = Rs 294

Cost of 1 m cloth = $\frac{294}{7} = \text{Rs } 42$

Therefore, cost of 5 m cloth = 42 × 5 = Rs 210

Question 2:

Ekta earns Rs 1500 in 10 days. How much will she earn in 30 days?

Answer:

Money earned in 10 days = Rs 1500

Money earned in 1 day = $\frac{1500}{10} = \text{Rs } 150$

Therefore, money earned in 30 days = 150 × 30 = Rs 4500

Question 3:

If it has rained 276 mm in the last 3 days, how many cm of rain will fall in one full week (7 days)? Assume that the rain continues to fall at the same rate.

Answer:

Measure of rain in 3 days = 276 mm

Measure of rain in 1 day = $\frac{276}{3} = 92 \text{ mm}$

Therefore, measure of rain in 7 days = 92 × 7 = 644 mm

Question 4:

Cost of 5 kg of wheat is Rs 30.50.

(a) What will be the cost of 8 kg of wheat?

(b) What quantity of wheat can be purchased in Rs 61?

Answer:

(a) Cost of 5 kg wheat = Rs 30.50

Cost of 1 kg wheat = $\frac{30.50}{5} = \text{Rs } 6.10$

Therefore, cost of 8 kg wheat = 6.10 × 8 = Rs 48.80

(b) Wheat purchased in Rs 30.50 = 5 kg

Wheat purchased in Re 1 = $\frac{5}{30.50} \text{ kg}$

Therefore, wheat purchased in Rs 61 = $\frac{5}{30.50} \times 61$ = 10 kg

Question 5:

The temperature dropped 15 degree Celsius in the last 30 days. If the rate of temperature drop remains the same, how many degrees will the temperature drop in the next ten days?

Answer:

Temperature drop in 30 days = 15°C

Temperature drop in 1 day = $\frac{15}{30} = \left(\frac{1}{2}\right)°C$

Therefore, temperature drop in next 10 days = $\frac{1}{2} \times 10 = 5°C$

Thus, there will be a temperature drop of 5ºC in the next ten days.

Question 6:

Shaina pays Rs 7500 as rent for 3 months. How much does she has to pay for a whole year, if the rent per month remains same?

Answer:

Rent for 3 months = Rs 7500

Rent for 1 month = $\frac{7500}{3}$ = Rs 2500

Therefore, rent for 12 months = 2500 × 12 = 30000

Thus, she has to pay Rs 30000 for a whole year.

Question 7:

Cost of 4 dozens bananas is Rs 60. How many bananas can be purchased for Rs 12.50?

Answer:

Numbers of bananas bought in Rs 60 = 4 dozens = 4 × 12 = 48

Number of bananas bought in Re 1 = $\frac{48}{60}$

Therefore, number of bananas bought in Rs 12.50 = $\frac{48}{60} \times 12.50$ = 10 bananas

Thus, 10 bananas can be purchased for Rs 12.50.

Question 8:

The weight of 72 books is 9 kg. What is the weight of 40 such books?

Answer:

Weight of 72 books = 9 kg

Weight of 1 book = $\frac{9}{72} = \frac{1}{8}$kg

Therefore, weight of 40 books = $\frac{1}{8} \times 40 = 5$ kg

Thus, the weight of 40 such books is 5 kg.

Question 9:

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?

Answer:

Diesel required for 594 km = 108 litres

Diesel required for 1 km = $\frac{108}{594} = \frac{2}{11}$litre

Therefore, diesel required for 1650 km = $\frac{2}{11} \times 1650$ = 300 litres

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

Question 10:

Raju purchases 10 pens for Rs 150 and Manish buys 7 pens for Rs 84. Can you say who got the pens cheaper?

Answer:

Raju purchased 10 pens for Rs 150.

∴ Price of 1 pen = $\frac{150}{10}$ = Rs 15

Manish purchased 7 pens for Rs 84.

∴ Price of 1 pen = $\frac{84}{7}$ = Rs 12

Therefore, Manish got the pens cheaper.

Question 11:

Anish made 42 runs in 6 overs and Anup made 63 runs in 7 overs. Who made more runs per over?

Answer:

Runs made by Anish in 6 overs = 42

∴ Runs made by Anish in 1 over = $\frac{42}{6} = 7$

Runs made by Anup in 7 overs = 63

∴ Runs made by Anup in 1 over = $\frac{63}{7} = 9$

Clearly, Anup made more runs per over.

********** END **********