

### Chain Rule Problems with Solutions for Bank Exams Pdf

1. The price of 357 mangoes is Rs. 1517.25. What will be the approximately price of 9 dozens of such mangoes?
- Rs. 3000
  - Rs. 3500
  - Rs. 4000
  - Rs. 2500  $\rightarrow$  D

Ans:

Let the required price be ₹  $x$ .

Then,

*More mangoes, More price*

*(Direct Proportion)*

$$\therefore 357 : (49 \times 12) :: 1517.25 : x$$

$$\Leftrightarrow 357x = (49 \times 12 \times 1517.25)$$

$$\Leftrightarrow x = \frac{(49 \times 12 \times 1517.25)}{357} \Leftrightarrow x = 2499.$$

Hence, the approximate price is ₹ 2500.

2. The cost of 16 packets of salt, each weighing 900 grams is Rs. 28. What will be the cost of 27 packets, if each packet weighs 1 Kg?
- Rs. 52.50
  - Rs. 56
  - Rs. 58.50
  - Rs. 64.75  $\rightarrow$  A

Ans:

Let the required cost be ₹  $x$ . Then,

*More packets, More cost*

*(Direct Proportion)*

*More weight, More cost*

*(Direct Proportion)*

$$\left. \begin{array}{l} \text{Packets } 16 : 27 \\ \text{Weight } 900 : 1000 \end{array} \right\} :: 28 : x$$

$$\therefore (16 \times 900 \times x) = (27 \times 1000 \times 28)$$

$$\Leftrightarrow x = \frac{(27 \times 1000 \times 28)}{16 \times 900} = \frac{105}{2} = 52.50.$$

3. In a dairy farm, 40 cows eat 40 bags of hush in 40 days. In how many days one cow will eat one bag of husk?
- 1

- b.  $1/40$
- c. 40
- d.  $80 \rightarrow C$

Ans:

Let the required number of days be  $x$ .

*Less cows, More days* (Indirect Proportion)

*Less bags, Less days* (Direct Proportion)

$$\left. \begin{array}{l} \text{Cows } 1 : 40 \\ \text{Bags } 40 : 1 \end{array} \right\} :: 40 : x$$

$$\therefore 1 \times 40 \times x = 40 \times 1 \times 40 \Leftrightarrow x = 40.$$

4. If 8 men can reap 80 hectares in 24 days, then how many hectares can 36, men reap in 30 days?
- a. 350
  - b. 400
  - c. 425
  - d.  $450 \rightarrow D$

Ans:

Let the required number of hectares be  $x$ . Then,

*More men, More hectares* (Direct Proportion)

*More days, More hectares* (Direct Proportion)

$$\left. \begin{array}{l} \text{Men } 8 : 36 \\ \text{Days } 24 : 30 \end{array} \right\} :: 80 : x$$

$$\therefore 8 \times 24 \times x = 36 \times 30 \times 80$$

$$\Leftrightarrow x = \frac{(36 \times 30 \times 80)}{(8 \times 24)} \Leftrightarrow x = 450.$$

5. If 18 pumps can raise 2170 tonnes of water in 10 days, working 7 hours a day; in how many days will 16 pumps raise 1736 tonnes of water, working 9 hours a day?
- a. 6
  - b. 7
  - c. 8
  - d.  $9 \rightarrow B$

Ans:

Let the required number of days be  $x$ . Then,

*Less pumps, More days* (Indirect Proportion)

*Less weight, Less days* (Direct Proportion)

*More hours/day, Less days* (Indirect Proportion)

$$\left. \begin{array}{ll} \text{Pumps} & 16:18 \\ \text{Weight} & 2170:1736 \\ \text{Hours/Day} & 9:7 \end{array} \right\} :: 10:x$$

$$\therefore (16 \times 2170 \times 9 \times x) = (18 \times 1736 \times 7 \times 10)$$

$$\Leftrightarrow x = \frac{18 \times 1736 \times 7 \times 10}{16 \times 2170 \times 9} = 7.$$

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