

CAVALRY DEFENCE ACADEMY, (CDA) DEHRADUN - 8381042191



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PROFIT AND LOSS





PROFIT AND LOSS

- 1. Cost Price (CP)** - This is the price at which an article is purchased.
- 2. Selling Price (SP)** - This is the price at which an article is sold.
- 3. Profit or Gain** - If the selling price is more than the cost price, the difference between them is the profit incurred.
- 4. Profit or Gain** = Selling price (SP) – Cost price (CP)
- 5. Loss** - If the selling price is less than the cost price, the difference between them is the loss incurred.
- 6. Loss** = Cost price (CP) – Selling price (SP)
- 7.** Profit or Loss is always calculated on the cost price.
- 8. Marked Price** - This is the price marked as the selling price on an article, also known as the listed price.



PROFIT AND LOSS

1. PROFIT, WHEN $SP > CP$ THEN $P = SP - CP$;

2. LOSS, WHEN $CP > SP$, $L = CP - SP$;

3. PROFIT % = $(\text{PROFIT} / \text{CP}) \times 100$

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4. LOSS % = $(\text{Loss} / \text{CP}) \times 100$



PROFIT AND LOSS

$$1. SP = \{(100 + P\%) / 100\} \times CP$$

$$2. SP = \{(100 - L\%) / 100\} \times CP$$

$$3. CP = \{100 / (100 + P\%)\} \times SP$$

$$4. CP = \{100 / (100 - L\%)\} \times SP$$



PROFIT AND LOSS

- ✓ $\text{DISCOUNT} = \text{MP} - \text{SP}$
- ✓ $\text{SP} = \text{MP} - \text{DISCOUNT}$
- ✓ FOR FALSE WEIGHT, PROFIT PERCENTAGE WILL BE $P\% = (\text{TRUE WEIGHT} - \text{FALSE WEIGHT} / \text{FALSE WEIGHT}) \times 100$.
- ✓ WHEN THERE ARE TWO SUCCESSFUL PROFITS SAY $X\%$ AND $Y\%$, THEN THE NET PERCENTAGE PROFIT EQUALS TO $(X + Y + XY) / 100$



PROFIT AND LOSS

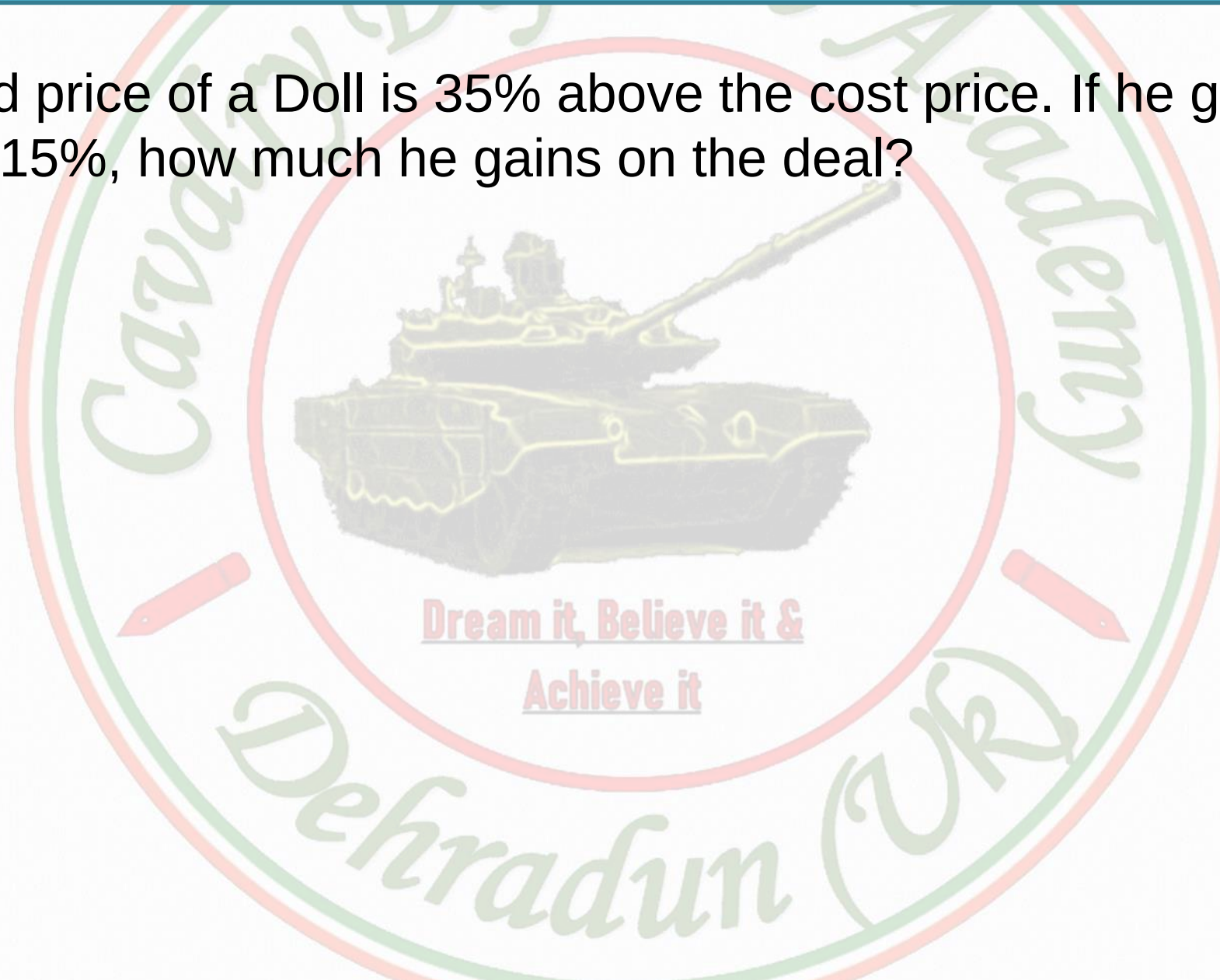
- ✓ WHEN THE PROFIT IS X% AND LOSS IS Y%, THEN THE NET % PROFIT OR LOSS WILL BE: $(X-Y-XY)/100$
- ✓ IF A PRODUCT IS SOLD AT X% PROFIT AND THEN AGAIN SOLD AT Y % PROFIT THEN THE ACTUAL COST PRICE OF THE PRODUCT WILL BE:
$$CP = [100 \times 100 \times P / (100+X)(100+Y)]$$

IN CASE OF LOSS, $CP = [100 \times 100 \times P / (100-X)(100-Y)]$
- ✓ IF P% AND L% ARE EQUAL THEN, $P = L$ AND $\% \text{LOSS} = P^2 / 100$



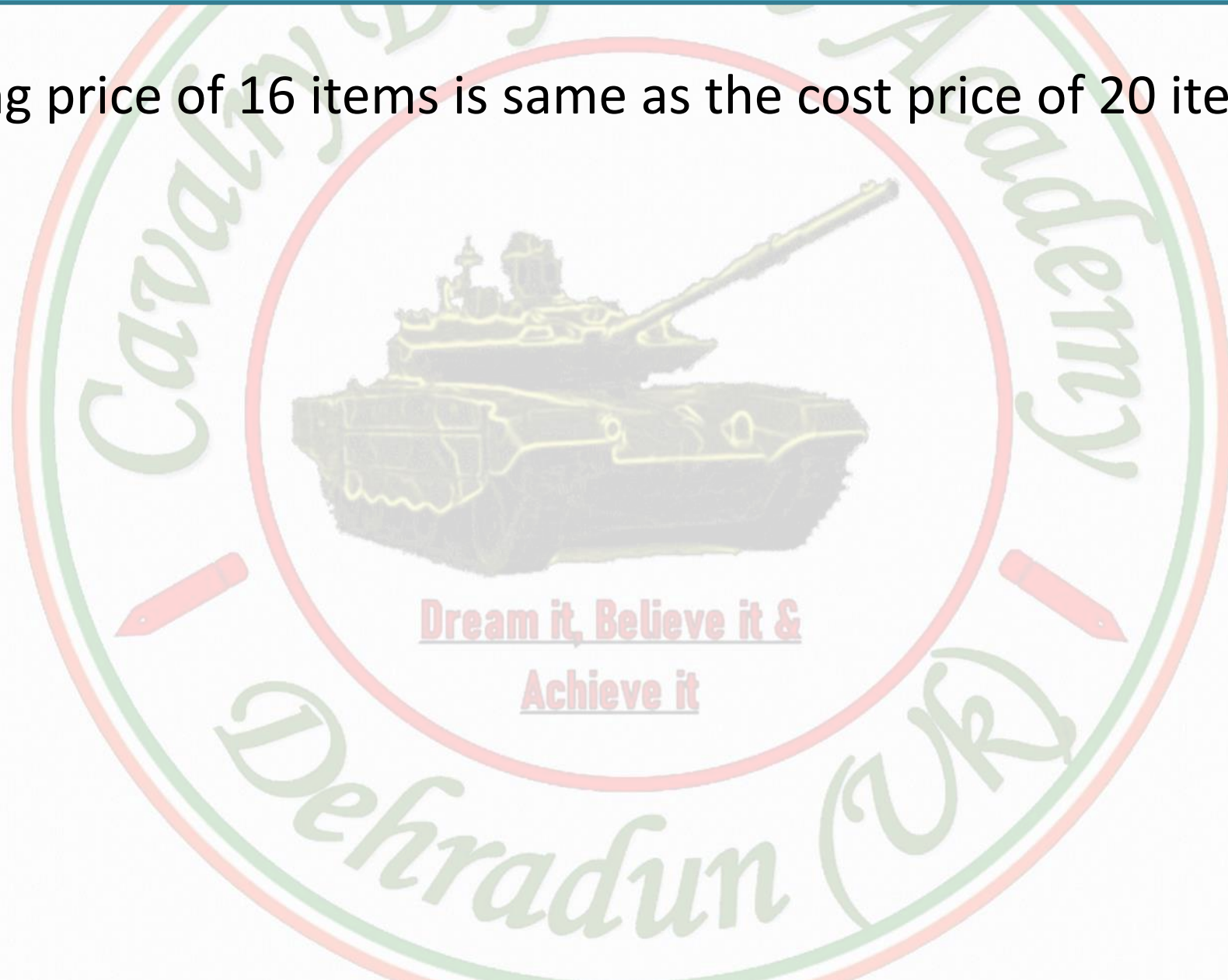
PROFIT AND LOSS

Q 1. Marked price of a Doll is 35% above the cost price. If he gives a discount of 15%, how much he gains on the deal?



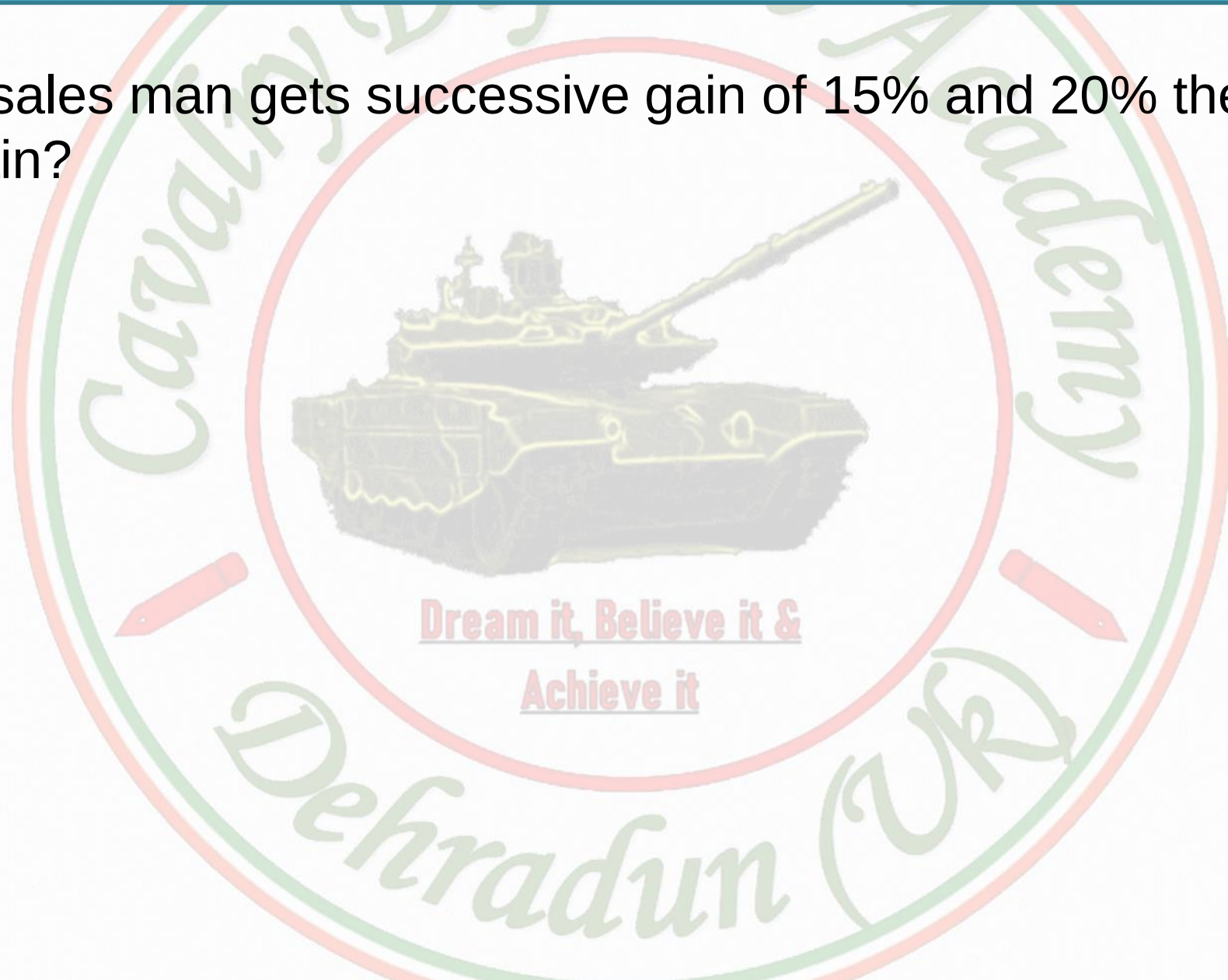
PROFIT AND LOSS

Q 2. If selling price of 16 items is same as the cost price of 20 items, then there is a?



PROFIT AND LOSS

Q 3. If a sales man gets successive gain of 15% and 20% then his actual gain?



PROFIT AND LOSS

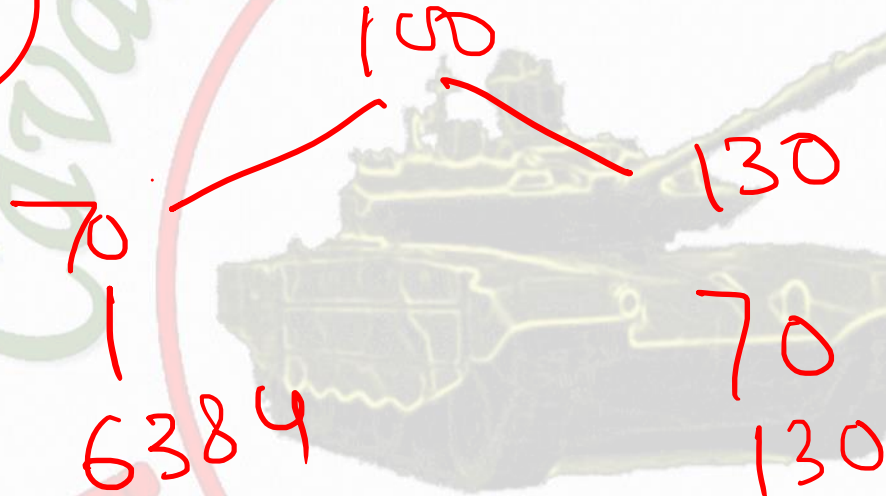
Q 4 Successive discounts of 20% and 15% are equal to a single discount of ?



PROFIT AND LOSS

Q 5. Raj sold an item for Rs. 6,384/- and incurred a loss of 30%. At what price should he have sold the item to have gained a profit of 30%?

Let the CP be 100
When loss 30% = 30
SP = 70
When P% = 130



$$\begin{array}{r} 6384 \\ \times 130 \\ \hline 191520 \\ 63840 \\ \hline 830160 \end{array}$$

11256

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PROFIT AND LOSS

Q 6. Sam purchased ~~20~~ dozens of toys at the rate of Rs. 375 per dozen. He sold each one of them at the rate of Rs. 33. What was his percentage profit?

- A. 5.6 B. 6.6 C. 7.6 D. None of these

$$\begin{array}{r} 33.00 \\ 31.25 \\ \hline 1.75 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 20 \text{ dozen} \\ 1.75 \times 100 \\ \hline 31.25 \end{array}$$

$$\begin{array}{r} 7 \\ 175 \times 100 \\ \hline 3125 \\ 125 \end{array} = \frac{28}{5} = 5.6$$

$$\begin{array}{r} 396 \\ 375 \\ \hline 21 \end{array}$$



PROFIT AND LOSS

Q7. An article sold at 50% profit. The net sale price is Rs 425 .what is the cost price of the article?

A. 500

B. 280

C. 300

~~D. None of these~~

283

Let C = 100
I 15 = 5%
= 50
SP = 100 + 50
= 150

100 ——— 150
150 — 425
———
150
100 ——— 150
150 — 425
———
150
425 × 100
———
1503



PROFIT AND LOSS

Q8. If the selling price of an article is $\frac{4}{3}$ times of its cost price, then the profit percentage is

A. 25%

B. 33.33%

C. 20%

D. 30%

✓ CP = 100

$$P = SP - CP = \frac{400}{3} - 100$$
$$= \frac{400 - 300}{3} = \frac{100}{3}$$

SP =

$$= \frac{4}{3} \times 100$$
$$= \frac{400}{3}$$
$$= \frac{100}{3} \times 100$$
$$= \frac{100}{3} \%$$



PROFIT AND LOSS

Q 9 .By selling an article at Rs. 800, a shopkeeper makes a profit of 25%. At what price should he sell the article so as to make a loss of 25%?

A. Rs. 460

B. Rs. 480

C. Rs. 500

D. Rs. 520

$$\begin{array}{r} 100 \\ \hline 75 \downarrow \\ 800 \times 75 \\ \hline 125 \end{array} = 480$$

Ans

$$\begin{array}{r} 125 \\ \hline \downarrow \\ 800 \end{array}$$

$$\begin{array}{r} 125 \rightarrow 800 \\ \hline 800 \\ 125 \\ \hline 800 \times 75 \\ \hline 125 \end{array}$$



PROFIT AND LOSS

Q 10. A man sold two houses for Rs. ~~7.8 lakhs~~ each. On the one, he gained 5% and on the other, he lost 5%. What percent is the effect of the sale on the whole?

- A. 0.25 % loss B. 0.25 % gain C. 25 % loss D. 25 % gain

Same change

always

LOSS

$$\frac{x^2}{100} =$$

$$\frac{25}{100} = \frac{x^2}{100}$$

$$\frac{25}{100} = 0.25\%$$



PROFIT AND LOSS

Q 11. Profit after selling a commodity for Rs. 425 is same as loss after selling it for Rs. 355. The cost of the commodity is:

- A. Rs. 385 B. Rs. 390 C. Rs. 395 D. Rs. 400

$$\begin{array}{r} 10.5 \\ \times 20 \\ \hline 210 \end{array}$$

$$\begin{array}{r} 425 + 355 \\ \hline 780 \\ \div 2 \\ \hline 390 \end{array}$$

$$\begin{array}{r} 780 \\ \div 2 \\ \hline 390 \end{array}$$

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PROFIT AND LOSS

Q12. An article is sold for Rs 5400 at a profit of 35 %. What would have been the actual profit or loss if it had been sold at Rs 2800 ?

A. 30% loss

B. 30% profit

C. 25% loss

D. 25% profit

Practice

CP - 4000
2800
↓
1200

100 → 135
↓
5400
30%
1200
4000
=

100 → 135
20
1000 × 5400 = 4000
=

5000 → 135
100 - 115
15000
100 × 5000
115



PROFIT AND LOSS

Q 13. A man sold two cars for Rs. 50000 each. On the one, he gained 5% and on the other, he lost 5%. What percent is the effect of the sale on the whole?

A. 0.25 % loss

B. 0.25 % gain

C. 25 % loss

D. 25 % gain

always $\frac{\text{loss}}{2}$



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PROFIT AND LOSS

Q14. A shopkeeper bought 150 Fountain pen at the rate of Rs. 500 per pen ~~driv~~. He spent Rs. 500 on transportation and packing. If the marked price of pen is Rs. 520 per pen and the shopkeeper gives a discount of 5% on the marked price then what will be the percentage profit gained by the shopkeeper?

A. 1.2%

B. 3.8%

C. 4.5%

D. 5.5%

$$CP \rightarrow 7550$$

$$1 \text{ Pen CP} = \frac{7550}{150}$$

$$= \frac{1510}{3}$$

$$520 \times \frac{5}{100} = 26$$

$$520$$

$$26$$

$$SP = 494$$

$$\text{Profit} =$$

$$= \frac{1510}{3} - 494$$

$$1510 - 1482$$

$$= \frac{28}{3}$$

$$\text{Profit} = SP - CP$$

$$\text{Profit} \% = \frac{28}{3} \times 100$$

$$= \frac{28}{3} \times \frac{100}{1510}$$

$$= \frac{280}{151}$$

$$= 1.85\%$$

Calculation if bag



PROFIT AND LOSS

Q15. By selling 45 lemons for Rs 40, a man loses 20%. How many should he sell for Rs 24 to gain 20% in the transaction?

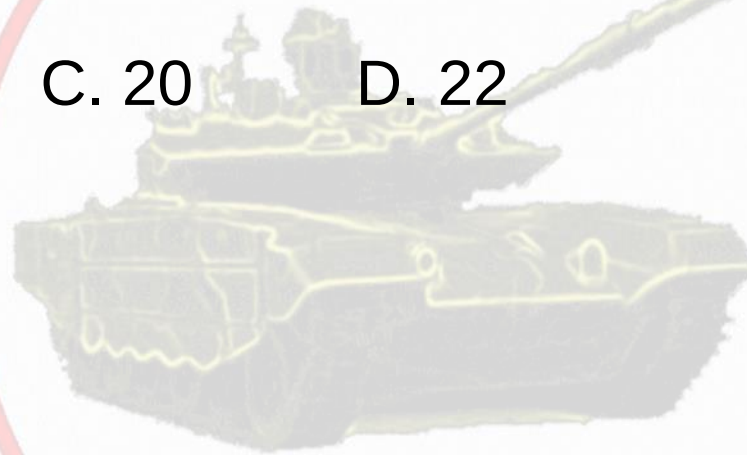
A. 16

B. 18

C. 20

D. 22

Very Simple
Home works



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