

PROFIT & LOSS - SOLVED EXAMPLES

Advertisements

Q 1 - A vendor bought 6 oranges for Re 10 and sold them at 4 for Re 6. Find his loss or gain percent.

- A - 8% gain
- B - 10% gain
- C - 8% loss
- D - 10% loss

Answer - D

Explanation

Suppose, number of oranges bought = LCM of 6 and 4 = 12
∴ CP = Re (10/6 * 12) = Re 20 and SP = Re (6/4 * 12) = Re 18
∴ Loss% = (2/20 * 100)% = 10%

Q 2 - By selling 33 meters of cloth, one gains the selling price of 11 meters. Find the gain percent.

- A - 50%
- B - 45%
- C - 40%
- D - 60%

Answer - A

Explanation

(SP of 33m) - (CP of 33m) = Gain = SP of 11m
∴ SP of 22m = CP of 33m
Let CP of each meter be Re 1. Then, CP of 22m = Re 22.
Hence SP of 22m = Re 33.
∴ %Gain = 11/22 * 100
= 50%

Q 3 - Pure ghee costs Re 100 per kg. A shopkeeper mixes vegetable oil costing Re 50 per kg and sells the mixture at Re 96 per kg, making a profit of 20%. In what ratio does he mix the pure ghee with the vegetable oil.

- A - 3:2
- B - 2:3
- C - 4:3
- D - 3:1

Answer - A

Explanation

Mean Cost price = Re $(100/120) \times 96 = \text{Re } 80$ per kg
Apply rule of allegation,

there4; Required ratio = $30:20 = 3:2$

Q 4 - The CP of 25 articles is equal to SP of 20 articles. Find the loss or gain percent.

- A - 35%
- B - 30%
- C - 25%
- D - None of these

Answer - C

Explanation

Let the CP of each article = Re 1.
Then CP of 20 articles = Re 20.
SP of 20 articles = CP of 25 articles = Re 25.
 $\therefore \text{Gain\%} = (5/20) \times 100\% = 25\%$

Q 5 - A shopkeeper bought 80 kg of sugar at Re 13.50/kg and mixed it with 120 kg sugar at Re 16/kg. If he is to make a profit of 16% what rate should he sell the sugar to his customers?

- A - Re 12/kg
- B - Re 15.25/kg
- C - Re 17/kg
- D - Re 17.40/kg

Answer - D

Explanation

CP of 200 kg of mixture = Re $(80 \times 13.50) + (120 \times 16) = \text{Re } 3000$
SP = 116% of Re 3000 = Re $(116/100) \times 3000 = \text{Re } 3480$
 $\therefore \text{Rate of SP} = \text{Re } 3480/200 = \text{Re } 17.40/\text{kg}$

Q 6 - A man bought cookies at 3 for a rupee. How many for a rupee should he sell to make a profit a 50%.

- A - 1
- B - 2
- C - 1.5
- D - None of these

Answer - B

Explanation

CP of 3 cookies = Re 1
SP of 3 cookies = 150% of Re 1 = $3/2$

For Re $3\frac{2}{3}$, the man sells 3 cookies.

Hence for Re 1, number of cookies sold = $3 \times \frac{2}{3} = 2$

Q 7 - Anil buys a calculator for Re 600 and sells it to Vikash at 10% profit. Vikash sells it to Chandan for 5 % profit. Chandan after using it for certain time, sells it to Dinesh at a loss of 20%. For how much Chandan sell the calculator to Dinesh.

A - Re 550.50

B - Re 564.40

C - Re 554.40

D - None of these

Answer - C

Explanation

SP for Chandan = $600 \times \left(\frac{110}{100}\right) \times \left(\frac{105}{100}\right) \times \left(\frac{80}{100}\right)$
= $600 \times \frac{924}{1000}$
= Re 554.40

Q 8 - An article is sold by X to Y at a loss of 20%, Y to Z at a gain of 15%, Z to W at a loss of 5% and W to V at a profit of 10%. If v had to pay Re 500, how much X paid for it?

A - Re 520.07

B - Re 490.07

C - Re 510.07

D - Re 530.07

Answer - A

Explanation

CP for X = $500 \times \left(\frac{100}{80}\right) \times \left(\frac{100}{115}\right) \times \left(\frac{100}{95}\right) \times \left(\frac{100}{110}\right)$
= $500 \times \frac{10000}{9614}$
= Re 520.07

Q 9 - A vendor when could not find buyers for his vegetable at Re 10/kg, reduced the rate to Re 8.10 per kg but uses a faulty weight of 900 gm in place of 1 kg weight. Find the percent change in the actual price or loss.

A - 8%

B - 8.10%

C - 9%

D - 10%

Answer - D

Explanation

After the price was reduced, 900 gm now costs Re 8.10.
Hence 1000gm will cost $\left(\frac{1000}{900}\right) \times 8.10 = \text{Re } 9$
% change in actual price or loss = $\left[\frac{10 - 9}{10}\right] \times 100\%$
= 10%

Q 10 - A trader marks the SP of an object at a profit of 20%. Considering the demand of the object, he further increases the price by 10%. Find the final profit %.

A - 35%

B - 31%

C - 32%

D - 25%

Answer - C

Explanation

Let the CP = Re 100
 \therefore SP = $100 * (120/100) * (110/100)$
= Re 132

Final profit = $(132 - 100) * 100\%$
= 32%

Q 11 - An article when sold for Re 4600 makes a 15% profit. Find the profit or loss % if it was sold for Re 3600.

A - 10% gain

B - 11% loss

C - 10% loss

D - 11% gain

Answer - C

Explanation

CP = $4600 * (100/115)$
= Re 4000

Loss% = $[(4000 - 3600) / 4000] * 100\%$
= 10%

Q 12 - A seller sells a watch at 5% loss. If he had bought it at 20% more and sold it for Re 115 less, he would have incurred a loss of 40%. Find the cost price of the watch.

A - Re 500

B - Re 5000

C - Re 550

D - Re 450

Answer - A

Explanation

Assume CP = x
Selling price at the first case = $(95/100)x$
Selling price at the second case = $(60/100) * (120/100)x$

$$= (7200/10000)x$$

As per question,

$$(95/100)x - (7200/10000)x = 150$$

$$\text{Or, } x = \text{Re } 500$$

Q 13 - When a man sold an article for Re 540, he made a loss of 10%. At what price should he sell it, so that he incurs a loss of only 5%.

A - Re 550

B - Re 525

C - Re 575

D - Re 570

Answer - D

Explanation

$$\begin{aligned} \text{CP} &= 540 * (100/90) \\ &= \text{Re } 600 \end{aligned}$$

$$\begin{aligned} \text{New SP} &= 600 * (95/100) \\ &= \text{Re } 570 \end{aligned}$$

Q 14 - Ram sells chocolates at a profit of 20% for Re 60. What will be the percentage loss or gain if he reduces the price to Re 55 due to less demand.

A - 11%

B - -11%

C - 10%

D - -10%

Answer - C

Explanation

$$\begin{aligned} \text{CP} &= 60 * (100/120) \\ &= \text{Re } 50 \end{aligned}$$

$$\text{New SP} = \text{Re } 55$$

$$\begin{aligned} \text{Gain\%} &= (5/50) * 100 \\ &= 10\% \end{aligned}$$

Q 15 - A shopkeeper buys rice for Re 1600. He had to sell 1/4th at a loss of 20%. If he is to make an overall gain of 10%, what percentage of profit he needs to make out of the remaining stock of rice?

A - 20%

B - 25%

C - 15%

D - 18%

Answer - A

Explanation

CP of 1/4th of the stock = $1600/4 = \text{Re } 400$
SP of 1/4th of the stock = $400 \times (80/100)$
= Re 320

In order to make a profit of 10% on total CP, the SP should be:
SP = $1600 \times (110/100)$
= Re 1760

∴ The SP for the remaining 3/4th of the stock should be $\text{Re } 1760 - \text{Re } 320 = \text{Re } 1440$.

Cost Price of the 3/4th of stock
= $\text{Re } 1600 - \text{Re } 400 = \text{Re } 1200$.
∴ %Gain = $[(1440 - 1200) / 1200 \times 100]$
= $(240 / 1200) \times 100$
= 20%

Q 16 - A 10% hike in the price of wheat forces a person to purchase 2 kg less for Re 110. Find the new and the original price of the wheat.

A - Re 10/kg

B - Re 5/kg

C - Re 6/kg

D - Re 8/kg

Answer - B

Explanation

10% of Re 110 = Re 11
Cost of 2 kg of wheat at new price = Re 11
So, cost of 1 kg of wheat at new price = $\text{Re } 5.50 = \text{Re } 11/2$

Original Price = $(11/2) \times (100/110)$
= Re 5 per kg

Q 17 - 10 kg of rice costs as much as 20 kg of wheat, 25 kg of wheat costs as much as 2kg of tea, 5 kg of tea costs as much as 25kg of sugar. Find the cost of 6 kg of sugar if 14 kg of rice costs Re 32.

A - Re 50

B - Re 55

C - Re 60

D - Re 65

Answer - C

Explanation

4 kg of rice costs Re 32
∴ 10kg of rice will cost = $(32/4) \times 10 = \text{Re } 80$

20 kg of wheat costs Re 80.
∴ 25kg of wheat costs = $(80/20) \times 25 = \text{Re } 100$

2kg of tea costs Re 100

\therefore 5 kg of tea costs = $(100/2)*5 = \text{Re } 250$

25kg of sugar costs Re 250.

\therefore 6 kg of sugar costs = $(250/25)*6 = \text{Re } 60$

Q 18 - A fruit seller sells bananas at a profit of 20%. If he increases the selling price of each banana by 25 paise, he earns a profit of 45%. Find the initial selling price of each banana and also its cost price.

A - SP = Re1.20, CP = Re 1

B - SP = Re1.50, CP = Re 1

C - SP = Re1.20, CP = Re 1.10

D - None of the above.

Answer - A

Explanation

Let CP = x paisa.

Initial SP = $x*(120/100)$ paisa

As per question,

$120x/100 + 25 = (145/100)x$

or, $145x/100 - 120x/100 = 25$

or, $25x/100 = 25$

or, $x = 100$ paisa

CP = 100 paisa or Re 1.

Initial SP = 120 paisa or Re 1.20.

Q 19 - A man sold two plots for Re 8 lakhs each. One on he earns a profit of 16% and the other he loses 16%. How much does he loss or gain in the whole transaction?

A - 2.5% loss

B - 3% gain

C - 2.56% loss

D - 3.56% loss

Answer - C

Explanation

Applying direct formula, %loss = $(16/10)2\%$

= $64/25\%$

= 2.56%

Q 20 - An uneducated retailer marks all his goods at 50% above the cost price and thinking that he will still make 25% profit, offers a discount of 25% on the marked price. What is his actual profit on the sales?

A - 10%

B - 12.50%

C - 11.50%

D - 12%

Answer - B

Explanation

Let CP = Re 100.
The, marked price, MP = Re 150
SP = 75% of Re 150 = Re 112.50
 \therefore Gain% = 12.50%

aptitude_profit_loss.htm