



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Arithmetic

Work sheet 22 answer key

Marks:15

Revision - Profit & Loss

Date:1.5.2020

Answer all the following questions(1×15=15)

1. Amit sold an umbrella for Rs. 680, losing 15%. The expense cost of the umbrella is:

- A - Rs. 782
- B - Rs. 800
- C - Rs. 578
- D - none of these

Answer : B

Explanation

Let the C.P. be Rs x =Then, S.P. = 85% of Rs x .

$$\therefore 85/100 \times x = 680 \Rightarrow x = (680 \times 20/17) = 800.$$

\therefore C.P. =Rs 800.

2. If an article is sold at an addition of 5 % as opposed to being sold at lost 5%, one gets Rs more. What is the expense cost of the article?

- A - Rs 100
- B - Rs 105
- C - Rs 110
- D - Rs 50

Answer : D

Explanation

Let the C.P be Rs. x . Then,

$$\therefore (105/100)x - (95/100)x = 5$$

$$\Rightarrow 105x - 95x = 500 \Rightarrow 10x = 500$$

$$X = 50$$

\therefore C.P =Rs. 50

3. On offering an article for Rs. 19.5, a man makes a profit of 30%. To increase its profit to 40%, what will be increment in its offering cost?

- A - Rs. 1.95
- B - Rs. 1.75
- C - Rs. 1.50
- D - Rs. 2.00

Answer : C

Explanation

S.P = Rs. 19.50 , Gain =30%

\therefore C.P = $(100/130 \times 19.50) = 15$

Now, C.P = Rs. 15, gain = 40%

New S.P = $(140/100 \times 15) = 21$

Increase = Rs. $(21-19.50) =$ Rs. 1.50

4. A person incurs 10% loss by selling a refrigerator for Rs 5400. At what price should the refrigerator be sold to earn 10% profit?

- A - 5700
- B - 6000
- C - 6300
- D - 6600

Answer : D

Explanation

SP=5400 X $(110)/90=6600$.

5. Raman purchased a fountain at 9/10 of its stamped value and sold it at 8% more than its stamped cost. His increase percent is:

- A - 8%
- B - 10%
- C - 18%
- D - 20%

Answer : D

Explanation

Let the marked price of the geyser be Rs. x.

C.P = Rs. $9x/10$ and S.P = 108% of Rs. x = Rs. $(108/100 \times x) = 27X/25$

Gain = $(27x/25-9x/10) = (108x-90x /100) =$ Rs. $9x/50$

\therefore Gain % = $(9x/50 \times 10/9x \times 100) \% = 20\%$

6. By selling an article for Rs.8.5 a dealer makes a profit of 20% by how much should he increase his selling price so as to make a profit of 30%?

A - 4

B - 5

C - 6

D - 8

Answer : A

Explanation

Assume cost = 100 ; Assume cost = 100

Profit =20 = 120 ; Profit= 30 = 130 =?

120 = 24

130 =?

$130 \times 24 / (120) = 28$

Increase in Selling price = $28 - 24 = 4$

7. Ramesh sells a bike to Suresh at 15% loss. If Suresh sell it for 45000 and gains 20% profit, the original cost of the bike was

A - Rs.46500

B - Rs.46875

C - Rs.46000

D - Rs.46950

Answer : B

Explanation

S.P= Rs. 45000 Gain = 20%

$C.P = 100/120 \times 45000 = \text{Rs.}37500$

Now S.P =Rs.37500 and loss 20%

$C.P = \text{Rs.} 100/80 \times 37500 = \text{Rs.}46875$

8. If A surpasses B by 40 % and B is not as much as C by 20 %, then A:C =?

A - 3:1

B - 3:2

C - 26:25

D - 28:25

Answer : D

Explanation

$B = 80\% \text{ of } C = 80/100 \times C = 4c/5 \text{ and}$

$A = 140\% \text{ of } B = (140b/100) = 7B/5$

$$A = 7b/5 = 7/5 \times 4C/5 = 28C/25$$

$$\Rightarrow A/C = 28/25$$

$$\therefore A : C = 28 : 25$$

9. An article is recorded at Rs.900 and two progressive rebates of 8% furthermore, 8% are given on it. What amount would the merchant addition or misfortune, if he gives a solitary rebate of 16%, rather than two markdowns?

A - Gain rs. 4.76

B - misfortune rs.5.76

C - pick up Rs. 5.76

D - misfortune, rs 4.76

Answer : B

Explanation

$$\text{S.P in 1st case} = 92\% \text{ of } 92\% \text{ of rs. } 900 = (92/100 \times 92/100 \times 900)$$

$$= 761.76$$

$$\text{S.P in 2nd case} = 84\% \text{ of rs. } 900 = (84/100 \times 900) = 756$$

$$\text{Loss} = \text{Rs. } 5.76$$

10. Mohan sold an article for Rs 21,000 at a loss of 25%. At what price should he sell it to gain 10%?

A-Rs 25,200.

B-Rs 27,500

C-Rs 30,800.

D-Rs 42,200

Answer : C

Explanation

$$21,000 = 75\%$$

$$\therefore 110\% = (21000/75) \times 110 = 30,800 \quad \text{using unitary method}$$

Hence, the required selling price of the article to gain 10% is Rs 30,800.

11. A shopkeeper bought 30 kg of rice at Rs 70 per kg and 20 Kg of rice at the rate Rs 70.75 per Kg. If he mixed the two brand of rice and sold the mixture at Rs.80.50 per Kg, his gain is,

A-Rs. 450

B-Rs. 485

C-Rs. 510

D-Rs. 525

Answer : C

Explanation

$$\text{Cost price of 50 kg rice} = 70 \times 30 + 70.75 \times 20$$

⇒ Cost price of 50 kg rice = Rs 3515

Selling price of 1 Kg rice = Rs. 80.50

Selling price of 50 Kg of rice = $80.50 \times 50 = \text{Rs. } 4025$

∴ Gain = S.P. – C.P.

⇒ Gain = $4025 - 3515 = \text{Rs. } 510$

12. A shopkeeper allows a discount of 12.5% on the marked price of a certain article and makes a profit of 20%. If the article costs the shopkeeper Rs. 210, then the marked price of the article will be

A-Rs. 387

B- Rs. 350

C-Rs. 386

D-Rs. 288

Answer : D

Explanation

S.P of the table = C.P of the table + 20% profit

$$= 210 + (20/100) \times 210$$

$$= 210 + 42$$

$$= 252$$

The shopkeeper allows a discount of 12.5% on the marked price of the article

Let the M.P be x

As, M.P = SP + Discount

$$\Rightarrow \text{M.P} = 252 + 12.5\% \text{ of M.P}$$

$$\Rightarrow x = 252 + (12.5/100) \times x, \Rightarrow x = 252 \times (8/7)$$

$$\Rightarrow x = 288$$

13. In a certain store, the profit is 440% of the cost. If the cost increases by 35% but the selling price remains constant, approximately what percentage of the selling price is the profit?

A-70%

B-80%

C-60%

D-75%

Answer: D

Explanation

Let,

Cost price = Rs. X

The profit is 440% of the cost

$$\therefore \text{Profit} = 4.40x$$

$$\therefore \text{Selling price} = \text{Cost price} + \text{Profit}$$

$$\therefore \text{Selling price} = x + 4.40x = 5.40x$$

If the cost increases by 35%, cost price becomes

$$= x + 0.35x = 1.35x$$

But the selling price remains same

$$\therefore \text{Profit} = \text{Selling price} - \text{Cost price} = 5.40x - 1.35x = 4.05x$$

$$\therefore \text{Required percentage} = (4.05x/5.40x) \times 100 = 75\%$$

14. A trader advertises for selling the cloth at 5% loss, but by using a false meter scale he actually gains 20%. What is the actual length of the scale?

A-0.75m

B-0.8m

C-0.6m

D-0.5m

Answer: B

Explanation

let the length of scale be 'x' metres

Let the cost price per meter cloth be Rs. 100

\therefore Trader advertise to sells cloth at Rs. 95/metre

But actually he sells x meters for Rs. 95, and gains 20% profit

Cost price of 1 meter length of cloth is 100.

\therefore Cost price of x meter length cloth = 100x

\therefore Cost Price + Profit = Selling Price

$$\Rightarrow 100x + 20\% \text{ of } 100x = 95$$

$$\Rightarrow 100x + 20x = 95$$

$$\Rightarrow 120x = 95$$

$$\therefore x = 0.79 \approx 0.80 \text{ m}$$

15. M and N enter into a partnership for a year. M contributes Rs 1500 and N contributes Rs 2000. After 4 months they admit R, who contributes Rs 2250. If N withdraws his contribution after 9 months, what would be the share of N after 1 year of partnership in a profit of Rs 900?

A-Rs 430

B-Rs 300

C-Rs 310

D-Rs 290

Answer: B

Explanation

It is clear that M, N and R invest their amounts for 12, 9 and 8 months respectively.

∴ Ratio of their shares-

M's share : N's share : R's share

$$= (1500 \times 12) : (2000 \times 9) : (2250 \times 8)$$

$$= (15 \times 12) : (20 \times 9) : (22.5 \times 8)$$

$$= 180 : 180 : 180$$

$$= 1 : 1 : 1$$

∴ Each of them gets = $900/3 = \text{Rs } 300$.

Hence, the share of N in the profit is Rs 300

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