

120+ PROFIT & LOSS QUESTIONS WITH SOLUTION

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1. A Shopkeeper buys two bicycles for Rs. 750. He sells first bicycle at a profit of 22% and the second bicycle at a loss of 8%. What is the SP of first bicycle if in the whole transaction there is no profit no loss?
- A) Rs506
B) Rs244
C) Rs185
D) Rs230
E) None

View Answer**Option B****Solution:**

CP of 1st bicycle = x

Then CP of 2nd bicycle is 750-x.

Their SP be $122/100 \times x$ and $92/100 \times (750-x)$

Given that there is no profit no loss.

$$122/100 \times x + 92/100 \times (750-x) = 750$$

$$122x + 750 \times 92 - 92x = 750 \times 100$$

$$122x - 92x = 750 \times 100 - 750 \times 92$$

$$30x = 750 \times (100-92)$$

$$X=200.$$

$$\text{SP of 1st bicycle} = 122/100 \times 200 = \text{Rs}244.$$

2. The cost price of item B is Rs. 200/- more than the cost price of item A. Item A was sold at a profit of 20% and item B was sold at a loss of 30%. If the respective ratio of selling prices of items A and B is 6 : 7, what is the cost price of item B?
- A) Rs520
B) Rs430
C) Rs400
D) Rs360
E) None

View Answer**Option C****Solution:**

Let the CP of item A be x

CP of item B is x+200.

$$(120/100 \times x) / (x+200) \times 70/100 = 6/7$$

$$120x / (x+200) \times 70 = 6/7$$

$$20x / 10(x+200) = 1$$

$$X = \text{Rs}200.$$

$$\text{CP of item B is } 200+200 = \text{Rs}400.$$

3. Two Mangoes, three grapes and four apples cost Rs. 15. Three Mangoes, two grapes

and one apple cost Rs. 10. I bought 3 Mangoes, 3 grapes and 3 apples. How much did I pay?

- A) Rs15
B) Rs18
C) Rs20
D) Rs25
E) None

View Answer**Option A****Solution:**

Mango=X; Grape = Y; Apple =Z ;

$$2X+3Y+4Z= 15 \text{--- 1}$$

$$3X+2Y+Z= 10 \text{--- 2}$$

$$\text{Adding (1) and (2) } 5X+5Y+5Z= 25$$

$$\text{Clearly, } X+Y+Z = 5.$$

So cost of 3 Mangoes, 3 grapes and 3 apples will be $3X+3Y+3Z$ i.e., 15

4. A watch dealer incurs an expense of Rs. 150 for producing every watch. He also incurs an additional expenditure of Rs. 30,000, which is independent of the number of watches produced. If he is able to sell a watch during the season, he sells it for Rs. 250. If he fails to do so, he has to sell each watch for Rs. 100. If he produces 1500 watches, what is the number of watches that he must sell during the season in order to breakeven, given that he is able to sell all the watches produced?
- A) 580
B) 620
C) 650
D) 700
E) None

View Answer**Option D****Solution:**

Total cost to produced 1500 watches =

$$(1500 \times 150 + 30000) = \text{Rs. } 2,55,000$$

Let he sells x watches during the season, therefore

$$\text{number of watches sold after the season} = (1500 - x)$$

$$250 \times x + (1500 - x) \times 100 = 150x + 150000$$

Now, break-even is achieved if production

cost is equal to the selling price.

$$150x + 150000 = 2,55,000$$

$$x = 700$$

5. A dealer offers a cash discount of 20% and still makes a profit of 20%, when he further allows 16 articles to a dozen to a particularly sticky bargainer. How much per cent above the cost price were his wares listed ?

A) 100%
B) 80%
C) 75%
D) 85%
E) None

View Answer

Option A

Solution:

$$MP = 120 / (80/100) = 150$$

Now he is selling 16 goods to a dozen (ie 12),

$$\text{so his loss} = \{(16-12)/16\} \times 100 = 25\%.$$

$$\text{Then the actual MP } 150 / (75/100) = 200$$

Hence, he has marked the MP 100% above the CP.

6. Profit earned by an organisation is distributed among officers and clerks in the ratio of 5 : 3. If the number of officers is 55 and the number of clerks is 70 and the amount received by each officer is Rs12,000, what was the total amount of profit earned?

A) Rs11 Lakh
B) Rs12.25Lakh
C) Rs10.56Lakh
D) Rs16Lakh
E) None

View Answer

Option C

Solution:

The total amount distributed among 55 officers = $Rs. 55 \times 12000 = Rs. 6,60,000$.

Their ratio 5:3

Then 5 660000

$$3 ? 396000$$

$$\text{Total profit} = 6,60,000 + 396000$$

$$= Rs 10,56,000.$$

7. The percentage profit earned by selling an article for Rs. 2120 is equal to the percentage loss incurred by selling the same article for Rs. 1520. At what price should the article be sold to make 25% profit?

A) Rs2275
B) Rs2100
C) Rs2650
D) Rs2400
E) None

View Answer

Option A

Solution:

The CP be

$$2120 + 1520 = 3640$$

$$3640 / 2 = 1820.$$

$$SP = 1820 \times 125 / 100 = 1820 \times 5/4$$

$$= Rs 2275$$

8. A purchased a machine at Rs 13,000, then got it repaired at Rs 3500, they gave its transportation charges Rs500. Then he sold it at 50% profit. At what price he actually sold it?

A) Rs18500
B) Rs25500
C) Rs22200
D) Rs19600
E) None

View Answer

Option B

Solution:

$$\text{The CP is } 13000 + 3500 + 500 = 17000$$

Then SP

$$100 \quad 17000$$

$$150 ? \implies 25500$$

9. In a certain store, the profit is 270% of the cost. If the cost increases by 30% but the selling price remains constant, approximately what %ge of the selling price is the profit.

A) 68%
B) 72%
C) 50%
D) 65%
E) None

View Answer**Option D****Solution:**

Let C.P. = Rs. 100.

Then, Profit = Rs. 270,

S.P. = Rs. 370.

New C.P. = 130% of Rs. 100 = Rs. 130

New S.P. = Rs. 370.

Profit = Rs. (370 - 130) = Rs. 240

Required percentage = $(240/370) \times 100$
= 64.86 = 65% (approx)

10. A person X sold an Item to Y at 40% loss, then Y sold it to third person Z at 40% profit and finally Z sold it back to X at 40% profit. In this whole process what is the percentage loss or profit of X?
- A) 70%
B) 62.5%
C) 57.6%
D) 55%
E) None

View Answer**Option C****Solution:**

Let the CP = Rs.100. for X.

Y's CP = Rs.60.

Z's CP = Rs.84.

Finally, X's CP = Rs.117.6.

\therefore X's loss = $117.6 - 60 = \text{Rs.}57.6$

\therefore X's loss percent = 57.6%

1. If Joel sells an article at $\frac{4}{5}$ th of its selling price and secures a profit of 20%, what will be the profit or loss percentage if he sells it at the actual selling price?
- A) 45%
B) 60%
C) 50%
D) 56%
E) None

View Answer**Option C****Solution:**

Let CP is Rs100

Profit 20% Means $\Rightarrow 120$.

$120 = \frac{4}{5}SP \Rightarrow SP = 150$.

Then profit %ge is 50%

2. A product costs a company Rs 60 to manufacture, and it sold the product to a dealer for Rs 70, who in turn sold it to a shopkeeper for Rs 85, who sold to a customer for Rs 102. What is the percentage of profit for the company and who made the highest profit on selling the product?
- A) $20 \frac{1}{3}\%$, Company
B) $16 \frac{2}{3}\%$, Dealer
C) $20 \frac{1}{3}\%$, Dealer
D) $16 \frac{2}{3}\%$, Shopkeeper
E) None

View Answer**Option B****Solution:**

Company Profit %ge is $(70 - 60)/60 \times 100 = 100/6 = 16 \frac{2}{3}$.

Then Dealers Profit %ge is $(85 - 70)/70 \times 100 = 150/7 = 21 \frac{3}{7}$.

Then Shopkeeper Profit %ge is $(102 - 85)/85 \times 100 = 20$

Among the three Dealer get the highest profit %ge.

3. Navya buys a certain number of toys at 12 per Rs 9 and the same number at 18 per Rs 9. If she sells them at 18 per Rs15 does she gain or lose and by what percentage?
- A) $33 \frac{1}{3}\%$ loss
B) 12% gain
C) $33 \frac{1}{3}\%$ gain
D) 12% loss
E) None

View Answer**Option C****Solution:**

She bought 12 toys at Rs 9.

And 18 toys at Rs 9
 Then 12toys = 18 9
 $12 ? = 6$
 Total 24toys = $(9+6)15$.
 She sells 18 toys at Rs 15.
 Now 18 15
 $(12+12) 24 ? = 20$
 Profit %ge is $15/20 * 100 = 300/4 = 33 \frac{1}{3}\%$.

4. A shopkeeper sells Marker at the rate of Rs.35 each and earns a commission of 10%. He also sells Gel pen at the rate of Rs. 65 each and earns a commission of 20%. How much amount (in rupees) of commission will he earn in 2 weeks, if he sells 12 markers and 8 Gel pens a day?
- A) 2100
 B) 1850
 C) 2044
 D) 2680
 E) None

View Answer

Option C

Solution:

Commission for
 marker = $(35 * 12) * 10/100 = 42$
 Commission for Gel pen
 = $(65 * 8) * 20/100 = 104$
 Total Commission earned in 2 weeks is,
 $(104 + 42) * 14 = 2044$.

5. A discount of 20% is given on the marked price of an article. The shopkeeper charges sales tax of 10% on the discounted price. If the selling price be Rs 1848, what is the marked price (in rupees) of the article?
- A) 2500
 B) 3200
 C) 3600
 D) 2100
 E) None

View Answer

Option D

Solution:

Let the MP be x
 Then $x * 80/100$ (20% discount)
 $* 110/100$ (10% sales) = 1848
 $X = 2100$

6. A calculate his profit %ge on the selling price whereas B calculate his on the cost price. They find that the difference of their profit is Rs 150. If the selling price of both of them are same and both of them get 20% profit, find their selling price (in rupees).
- A) 2500
 B) 3000
 C) 3200
 D) 4000
 E) None

View Answer

Option E

Solution:

Let SP is x
 A's profit = $x * 20/120 = x/6$
 B's profit = $x * 20/100 = x/5$
 Diff is $x/6 - x/5 = 150$
 $x/30 = 150 \Rightarrow x = 4500$

7. A person sells two fans for Rs. 6800. The cost price of the first fan is equal to the selling price of the second fan. If the first is sold at 30% loss and the second at 100% gain, what is total profit or loss (in rupees)?
- A) 750
 B) 800
 C) 670
 D) 580
 E) None

View Answer

Option B

Solution:

Let the cp of 1st fan = sp of 2nd fan = Rs 100
 \therefore sp of 1st fan = 70 (loss 30%)
 Cp of 2nd fan = 50 (profit 100%)
 Total cp = $100 + 50 = 150$
 and total sp = $70 + 100 = 170$
 \therefore When SP = 6800,
 then cp = $150/170 \times 6800 = 6000$

$$\therefore \text{Profit} = 6800 - 6000 = 800$$

8. A dealer allowed a discount of 25% on marked price of Rs.20,000 on an article and incurred a loss of 20%. What discount should he allow on the marked price so that he gains Rs.450 on the article?
- A) 6.5%
B) 5%
C) 4.25%
D) 4%
E) None

View Answer**Option D****Solution:**

$$25\% \text{ discount} \Rightarrow 20,000 \times 75/100 = 15000$$

Then loss 20% means

$$x \times 80/100 = 15000 \Rightarrow 3750 \times 5 = 18750$$

$$\text{He gain 450 means } SP = 18750 + 450 = 19200$$

$$\text{Now } 20000 - 19200 = 800$$

$$\% \text{ge} = 800/20000 \times 100 = 4\%$$

9. A dealer marked the price of an item 20% above cost price. He allowed two successive discounts of 20% and 25% to a customer. As a result he incurred a loss of Rs.1400. At what price (in rupees) did he sell the item to the customer?
- A) 3600
B) 4200
C) 3850
D) 4125
E) None

View Answer**Option A****Solution:**

$$CP = 100$$

$$MP = 120$$

$$120 \times 80/100 = 96; 96 \times 75/100 = 72$$

$$\text{Loss} = 100 - 72 = 28\%$$

$$CP = 100/28 \times 1400 = 5000$$

$$SP = 5000 \times 72/100 = 3600$$

10. A reputed company sells a wrist watch to a wholesaler making a profit of 10%. The wholesaler, in turn, sells it to the retailer making a profit of 10%. A customer purchases it by paying Rs. 990. Thus the profit of retailer is $2(3/11)\%$. What is the cost (in rupees) incurred by the the company to produce it?

- A) 600
B) 700
C) 800
D) 900
E) None

View Answer**Option C****Solution:**

$$x \times 110/100 \times 110/100 \times (100 + 25/11)/100 = 990$$

$$x = 800$$

1. A dealer buys a product at Rs. 1920, he sells at a discount of 20% still he gets the profit of 20%. What is the selling price of that product?
- A) Rs.1159
B) Rs.1550
C) Rs.2304
D) Rs.1785
E) Rs.1245

View Answer**Option C****Solution:**

$$CP \text{ ——— } SP \text{ ——— } MP$$

$$100 \text{ — } (20\% \text{ profit}) \text{ — } 120 \text{ — } (20\% \text{ discount}) \text{ — } 150$$

$$\Rightarrow SP = 1.2CP = 2304$$

2. The ratio of cost price and marked price of an article is 2:3 and ratio of percentage profit and percentage discount is 3:2. What is the discount percentage?
- A) 18.58%
B) 20.25%
C) 16.66%

- D) 22.13%
E) 14.51%

View Answer**Option C****Solution:**

$$CP : MP = 2x : 3x$$

$$\Rightarrow \text{profit} = x$$

$$\text{profit \%} : \text{discount \%} = 3 : 2$$

$$\text{Let } CP = 200, SP = 300$$

$$\text{But } (3x/100)*200 + (2x/100)*300 = 100$$

$$\Rightarrow x = 8.33\%$$

$$\text{Discount } 2x = 16.66\%$$

3. A firm of readymade garments makes both men's and women's shirts. Its average profit is 6% of the sales. Its profit in men's shirts average 8% of the sales and women's shirts comprise 60% of the output. Find the average profit per sales rupee in women's shirts .
A) 1.2560
B) 0.0125
C) 0.0566
D) 0.0466
E) 1.1562

View Answer**Option D****Solution:**

According to questions,
women's shirts comprise 60% of the output.

Therefore, Men's shirts comprise 40% of the output.

Average profit from men's shirts = 8% of 40 = 3.2 out of 40

Overall average profit = 6 out of 100

Average profit from women's shirts = 2.8 out of 60

= 0.0466 out of each shirt.

4. A shopkeeper marks his goods 20% above his cost price and gives 15% discount on the marked price. Find his gain%.
A) 2%
B) 8%
C) 11%
D) 6%
E) 7%

View Answer**Option****Solution:**

$$CP = 100, MP = 120$$

$$D = (15/100)*120 = 18\%$$

$$SP = 102$$

$$P\% = (P/CP)*100 = (2/100)*100 = 2\%$$

5. A, B and C invest in the ratio of 3 : 4 : 5 . The percentage of return on their investments are in the ratio of 6 : 5 : 4 . Find the total earnings, if B earns Rs. 250 more than A.
A) 7500
B) 6999
C) 4575
D) 7250
E) 2500

View Answer**Option D****Solution:**

_____ C	A _____ B _____
Investment	3x _____ 4x _____
_____ 5x	
Rate of return	6y% _____ 5y% _____
_____ 4y%	
Return	(18xy/100) _____
	(20xy/100) _____ (20xy/100)
Total	= (18+20+20) = 58xy/100
B's earnings - A's earnings	= 2xy/100 = 250
Total earnings	= 58xy/100 = 7250

6. Jagran group launched a new magazine in January 2004. The group printed 10000 copies initially for Rs. 50000. It distributed 20% of its stock freely as specimen copy and 25% of the rest magazines are sold at 25% discount and rest at 16.66% discount whose printing price was Rs. 12 per copy . What is the overall gain or loss in the first month's issue of magazine, if the magazine could not realize the income from advertisements or other resources?
A) 56%
B) 62%
C) 74%

- D) 50%
E) 68%

View Answer**Option A****Solution:**

Total cost = Rs.50,000

Total sale price = $2000 * 9 + 6000 * 10 = 78,000$

Profit% = $(28000/50000) * 100 = 56\%$

7. A dishonest trader marks up his goods by 80% and gives discount of 25% . Besides he gets 20% more amount per kg from wholeseller and sells 10% less per kg to customer. What is the overall profit percentage ?
- A) 63%
B) 72%
C) 88%
D) 55%
E) 80%

View Answer**Option E****Solution:**

CP = $100/120 = 10/12$

SP = $135/90 = 18/12$

Profit % = $\{[(18/12) - (10/12)] / (10/12)\} * 100 = 80\%$

8. By selling 12 marbles for a rupee, a shopkeeper loses 20% . In order to gain 20% in the transaction , he should sell the marbles at the rate of how many marbles for a rupee?
- A) 14
B) 8
C) 11
D) 9
E) 22

View Answer**Option B****Solution:**

SP of 12 marbles = Rs.1 , loss = 20%

CP of 12 marbles = Rs. $(1/0.8) = \text{Rs. } 1.25$

SP of 12 marbles at a gain of 20%

CP * 1.2 = $1.25 * 1.2$

= Rs. 1.5

It means in order to gain 20%, he should sell 12 marbles for Rs.1.5

For Rs. 1 , he should sell $12/1.5 = 8$ marbles

9. A shopkeeper bought a DVD marked at Rs. 200 at successive discounts of 10% and 15% respectively. He spent Rs. 7 on transport and sold the table for Rs.208 .What will be his profit percentage ?
- A) 58%
B) 44%
C) 30%
D) 50%
E) 62%

View Answer**Option C****Solution:**

Single equivalent discount for 10% and 15% = $(15 + 10 - (15 * 10/100))\% = 23.5\%$

CP of DVD = $200 * (100 - 23.5)\% = \text{Rs. } 153$

Expense on transport = Rs. 7

Actual CP = $153 + 7 = \text{Rs. } 160$

Profit % = $[(208 - 160)/160] * 100 = 30\%$

10. The cost of setting up a magazine is Rs.2800. The cost of paper and ink is Rs.80/ 100 copies and printing cost is Rs. 160 / 100 copies. In the last month 2000 copies were printed but only 1500 copies could be sold at Rs. 5 each . Total 25% profit on the sale price was realized. There is one more resource of income from the magazine which is advertising. What sum of money was obtained from the advertising in magazine?
- A) Rs.1654
B) Rs.1522
C) Rs.1750
D) Rs.1975
E) Rs.1800

View Answer**Option D****Solution:**

Setup cost = Rs.2800

Paper , ink = Rs. 1600

Printing cost = Rs. 3200
 Total cost = Rs. 7600
 Total sale price = $1500 \times 5 = 7500$
 Let the amount obtained from advertising is x ,
 then
 $(7500 + x) - 7600 = 25\% \text{ of } 7500$
 $\Rightarrow x = 1975$

1. A dealer offers a discount of 20% and still makes a profit of 20% and he further allows 4 articles free on the sale of 12 articles. Find the ratio of cost price to market price.
 A) 1:2
 B) 4:5
 C) 3:7
 D) 2:5
 E) 5:7

View Answer

Option A

Solution:

Formula : $MP(1 - d\%) = CP(1 + g\%)$

$MP(80/100) = CP(120/100)$

$CP/MP = 80/120$ ——— (1)

Now,

16 articles given in the cost of 12 articles

MP of one article = total / 12 ——— (2)

CP of one article = total / 16 ——— (3)

For one article:

$CP/MP = (80/16) / (120/12) = 1/2$

2. A and B are dealers of a bike company. The price of a bike is Rs.28,000. A gives a discount of 10% on whole , while B gives a discount of 12% on the first Rs.20,000 and 8% on the rest Rs.8000. What is the difference between their selling price?
 A) Rs.110
 B) Rs.180
 C) Rs.240
 D) Rs.200
 E) Rs.90

View Answer

Option C

Solution:

A's discount = 2800

B's discount = $2400 + 640 = 3040$

Required difference = $3040 - 2800 = \text{Rs.}240$

3. Sonata sells a wrist watch to a wholeseller making a profit of 10%. The wholesaler sells it to the retailer making a profit of 10%. A customer purchases it by paying Rs.990. Thus the profit of retailer is $2(3/11)\%$ what is the cost incurred by the Sonata to produce it?
 A) Rs.755
 B) Rs.950
 C) Rs.850
 D) Rs.550
 E) Rs.800

View Answer

Option E

Solution:

$[(x \times 1.1) \times 1.1] \times (1125/1100) = 990$

$\Rightarrow x = 800$

4. Fanta and Coke, there are two companies, selling the packs of cold-drinks. For the same selling price Fanta gives two successive discounts of 10% and 25%. While Coke sells it by giving two successive discounts of 15% and 20%. What is the ratio of their marked price?
 A) 110:111
 B) 120:125
 C) 131:133
 D) 136:135
 E) 140:141

View Answer

Option D

Solution:

Fanta $\times 0.9 \times 0.75 = \text{Coke} \times 0.85 \times 0.80$

Fanta/Coke = 136/135

5. Profit on selling 10 candles equals selling price of 3 bulbs. While loss on selling 10 bulbs equals selling price of 4 candles. Also profit percentage equals to the loss percentage and cost of a candle is half of the cost of a bulb. What is the ratio of selling price of candle to the selling price of a bulb?
- A) 2:1
B) 3:2
C) 7:9
D) 5:3
E) 3:1

View Answer**Option B****Solution:**

Candle _____ Bulb

CPx _____ y

SP.....a _____ b

and $y = 2x$ Profit = $10(a - x) = 3b$ Loss = $10(y - b) = 4a$ Profit% = $(3b/10x) \times 100$ _____ (1)and Loss% = $(4a/10y) \times 100$ _____ (2)

Again,

equating (1) & (2), we get

 $a/b = 3/2$

6. A person wants to reduce the trade tax so he calculates his profit on the sale price instead of on the cost price. In this way by selling a article for Rs. 280 he calculates his profit as $14\frac{2}{7}\%$. What is his actual profit percentage ?
- A) 20.12%
B) 16.66%
C) 15.66%
D) 22.21%
E) 31.11%

View Answer**Option B****Solution:**

CP _____ SP

240.....(- $14\frac{2}{7}\%$).....280Actual profit% = $(40/240) \times 100 = 16.66\%$

7. A person sold an electronic watch at Rs. 96 in such a way that his percentage profit is same as the cost price of the watch . If he sells it at twice the percentage profit of its previous percentage then find the new selling price.
- A) Rs.132
B) Rs.120
C) Rs.123
D) Rs.100
E) Rs.110

View Answer**Option A****Solution:** $SP = x + (x \times x)/100 = 96\%$ $\Rightarrow x = 60$ New , SP = $60 + (60 \times 120)/100 = \text{Rs. } 132$

8. A bookseller procures 40 books for Rs. 3200 and sells them at a profit equal to the selling price of 8 books. What is the selling price of one dozen books, if the price of each book is same?
- A) Rs.1300
B) Rs.1100
C) Rs.800
D) Rs.1200
E) Rs.1000

View Answer**Option D****Solution:**CP = Rs. $3200/40 = \text{Rs. } 80$

Now SP of 40 books = CP of 40 books + SP of 8 books

 $\Rightarrow \text{SP of 32 books} = 3200$

SP of 1 book = Rs.100

Therefore,

Required SP of 1 dozen books = Rs. 1200

9. A firm of readymade garments makes both men's and women's shirts. Its average profit is 6% of the sales. Its profit in men's shirts average 8% of the sales and women's shirts comprise 60% of the output. What is the

average profit per sales rupee in women's shirts.

- A) 0.1243
- B) 0.5416
- C) 0.0466
- D) 0.5247
- E) 0.2451

View Answer

Option C

Solution:

Women's shirts comprise = 60%

Men's shirts comprise = 40%

Average profit from men's shirts = 8% of 40 = 3.2 out of 40

Overall average profit = 6 out of 100

Average profit from women's shirts = 2.8 out of 60 i.e. 0.0466 out of each shirt.

10. Of the two varieties of rice available, variety A is bought at Rs.32 per kg and variety B at Rs.80 per kg. Two varieties of rice are mixed together in the respective ratio of 8:5 and the mixture is sold at Rs.72 per kg. What per cent of profit approximately the seller receives ?
- A) 50%
 - B) 40%
 - C) 30%
 - D) 55%
 - E) 43%

View Answer

Option E

Solution:

Let 8 kg of first variety of rice and 5 kg of second variety is mixed.

CP of 13 kg of rice = $(8 \times 32 + 5 \times 80) = \text{Rs. } 656$

SP of 13 kg of rice = $72 \times 13 = \text{Rs. } 936$

Profit = $936 - 656 = \text{Rs. } 280$

Profit% = $(280/656) \times 100 = 43\%$

□

Raman calculates his profit % on the selling

price whereas Rajeev calculates his on the cost price. They find that the difference of their profits Rs.150. If the selling price of both the m are the same and both of them get 50% profit.

Find their selling price.

- A) Rs. 620
- B) Rs. 900
- C) Rs.870
- D) Rs.750
- E) Rs.550

View Answer

Option B

Solution:

selling price = $[\text{Diff.} \times 100 \times (100 + 50)] / (50)^2$
 $= [150 \times 100 \times 150] / 2500 = 900$

□ A trader has 600kgs of rice , a part of which he sells at 15% profit and the remaining quantity at 20% loss. On the whole , he incurs an overall loss of 6% .What is the quantity of rice he sold at 20% loss?

- A) 300kg
- B) 410kg
- C) 360kg
- D) 210kg
- E) 500kg

View Answer

Option C

Solution:

Quantity of rice sold at 20% loss = x kg (let)

Quantity of rice sold at 15% gain = $(600 - x)$ kg

$(600 - x) \times (115/100) + (x \times 80)/100 = (600 \times 94)/100$

$\Rightarrow x = 12600/35 = 360 \text{ kg}$

□ A camel and a cart together cost Rs. 5000.If by selling the camel at a profit of 10% and the cart at a loss of 10% a total profit of 2.5% is made ,then what is the cost price of the camel ?

- A) Rs.4500
- B) Rs. 3125
- C) Rs. 3000
- D) Rs.2100
- E) Rs.3800

View Answer

Option B

Solution:

Let the cp of the camel and the cart be x and $(8000 - x)$ resp.

sp of camel = $1.1x$

sp of cart = $0.9(5000 - x)$

Therefore ,

$$1.1x * 0.9(5000 - x) = 5000 * 1.025$$

$$\Rightarrow x = \text{Rs. } 3125$$

□ If there is a loss of 40% when a good is sold at $(2/5)$ th of its earlier selling price. Find the profit% after selling the good at a certain price.

- A) 24.15%
- B) 31.3%
- C) 47%
- D) 35%
- E) 50%

View Answer

Option E

Solution:

CP = $(2/3)$ of SP

SP = $(100 + P) / 100$ of CP

Equating both the above equations,

Profit = 50%

□ There are two watches of cost Rs. 800. One is sold at a profit of 16% and the other at a loss of 8%. If there is no loss or no gain in the whole transaction, the cost price of the watch on which the shopkeeper gains is?

- A) Rs. 400
- B) Rs. 740
- C) Rs. 504
- D) Rs. 450
- E) Rs. 645

View Answer

Option A

Solution:

profit loss

+16 -8

————— 0

8 16

1 : 2

Therefore ,

price of watch sold at profit = $(1/2) * 800 = \text{Rs. } 400$

price of watch sold at loss = $2 * 800 = \text{Rs. } 1600$

□ Niel bought 30kg rice at the rate of Rs. 9.50/kg and 40kg of rice at the rate of Rs. 8.50/kg and mixed them. She sold the mixture at the rate of Rs. 8.90/kg. Find the total profit or loss in the whole transaction.

- A) Rs. 4 profit

B) Rs. 2 loss

C) Rs. 2 profit

D) Rs. 4 loss

E) None of these

View Answer

Option B

Solution:

$$\text{Total CP} = 30 * 9.50 + 40 * 8.50 = 625$$

$$\text{Total SP} = 8.9(30 + 40) = 623$$

$$\text{Loss} = \text{Rs. } 2$$

□ If a shopkeeper sell a TV at 15% profit and a DVD at 12% loss then he earns Rs. 540 as total profit but if he sells the TV at 12% loss and the DVD at 15% profit then there is no loss or profit. Find the price of the TV and the DVD ?

- A) Rs. 11,000 and Rs. 2000
- B) Rs. 15,000 and Rs. 3000
- C) Rs. 11,000 and Rs. 6000
- D) Rs. 10,000 and Rs. 8000
- E) Rs. 17,000 and Rs. 4000

View Answer

Option D

Solution:

TV DVD

CP—500 400

SP—+15% -12%

P = 75 L = -48

Total profit = $75 - 48 = \text{Rs. } 27$

$27 * 20 = \text{Rs. } 540$

CP of TV = $500 * 20 = \text{Rs. } 10,000$

CP of DVD = $400 * 20 = \text{Rs. } 8000$

□ A cloth merchant uses 120cm scale while buying, instead a meter scale, but uses an 80 cm scale while selling the same cloth. If he offers a discount of 20% on cash payment. Find the profit percent.

- A) 40%
- B) 35%
- C) 20%
- D) 15%
- E) 30%

View Answer

Option C

Solution:

$$\text{After discount} = (80 * 120) / 100 = 96$$

$$\text{Profit} = 96 - 80 = 16$$

$$\text{Therefore, Profit\%} = (16 * 100) / 80 = 20\%$$

□ An article is marked 50% over its cost price. Two successive discounts of 12% and 13(1/2)% are allowed on the marked price of the article. Find the profit or loss percent after selling at discount.

- A) 8%
B) 10%
C) 13%
D) 14.18%
E) 7.4%

View Answer

Option D

Solution:

Let the CP be Rs. 100

SP = $150 * (88/100) * (86.5/100)$ = Rs. 114.18

Therefore ,
= $(14.18/100) * 100$ = 14.18%

□ A trader marked his goods at such a price that after allowing a discount of 12(1/2) % for cash payment, he makes a profit of 20% . What is the marked price of the good which costs Rs. 210 ?

- A) Rs.300
B) Rs.210
C) Rs.470
D) Rs. 288
E) Rs.200

View Answer

Option D

Solution:

Required MP = $[210 * (100+20)] / (100-12.5)$ =
 $(210 * 120) / 87.5$ = Rs. 288

1. If a person reduce his selling price of an article by rs40 then the suggested profit of 33(1/3)% convert into loss of 20%. Find the cost price?

- A) Rs60
B) Rs75
C) Rs100
D) Rs150

View Answer

Option B

Solution:

. C.P.....
...S.P
33(1/3)%

gain = $1/3$ 3.....4

20% LOSS =

$1/5$ 5.....4

Make C.P same & we will get

15.....20

15.....12

$20-12=8$

$8=40$

$1=5$

$15=75$

2. The price of an article increase by 20% and a man now get 10kg less, if he also reduce his consumption by 20%, then find how much kg of article he used to purchase in normal price?

- A) 15kg
B) 20kg
C) 30kg
D) 40kg

View Answer

Option C

Solution:

. 100

80 120

$120-80=40$

$40/120 * T=10$

$T=30\text{kg}$

3. A shopkeeper sell his goods at 25% loss but he uses false weight of 30%. Find the loss or profit of shopkeeper in this whole process?

- A) 50/7% profit
B) 50/3% profit
C) 50/7% loss
D) 50/3% loss

View Answer

Option A

Solution:

. 1000

700 750

$750-700=50$

$50/700 * 100 = 50/7\%$ profit

4. A shopkeeper sells an article at 25% profit. Had he bought it for 10% loss and sold it for rs16 less, he would have earned 30%

profit. What is the actual cost price?

- A) 100
- B) 150
- C) 175
- D) 200

View Answer

Option D

Solution:

let C.P = 100

CP.....SP

100.....125

At 10% loss

90.....117.....125- 117= 8

. +30% profit

8 =16

1 =2

100 =200

5. A dishonest milkman sells milk at cost price but he mixes water and earns $14\frac{2}{7}\%$. Find the ratio of mixture and milk in the mixture?

- A) 7 : 1
- B) 7 : 8
- C) 1 : 7
- D) 8 : 7

View Answer

Option D

Solution:

milk : water

100 $14\frac{2}{7}\%$

7 : 1

Milk =7

Mixture = 7+1 =8

Mixture : milk

8 : 7

6. A man sells his two articles at Rs1200. At one he gains 25% and at another he gains $16\frac{2}{3}\%$. Overall he gains 20%. Find the cost price of first article?
- A) 500
 - B) 400
 - C) 600
 - D) 700

View Answer

Option B

Solution:

first we find C.P of both

20% gain = $\frac{1}{5}$

SP is 1200, so $1+\frac{1}{5} = \frac{6}{5} = 1200$. SO $\frac{5}{6} = 1000$

25..... $50\frac{2}{3}$

..... 20

$\frac{10}{3}$5

2 : 3

$\frac{2}{5} \times 1000 = 400$

7. A sold an article to B at the profit of 25%, B sold it to C at loss of 10% and C sold it to D at the profit of 20%. If D paid rs27, then how much A paid to buy this article?
- A) Rs20
 - B) Rs15
 - C) Rs12
 - D) Rs9

View Answer

Option A

Solution:

$\frac{125}{100} \times \frac{90}{100} \times \frac{120}{100} \times X = 27$

X = rs20

8. A man buys some toffees at 5 toffee in 3rupee and same number of toffee at 5 toffee in rs4. He sold all of them at 5 toffee in 4 rupee. Find his overall gain or loss percent?
- A) $16\frac{2}{3}\%$
 - B) 10%
 - C) 20%
 - D) $14\frac{2}{7}\%$

View Answer

Option D

Solution:

. Rs.....Qty

. 3.....5

. 4.....5

C.P Rs7 10toffees

He sold at 5toffees in Rs4 so for 10toffees he gets Rs8

C.P =Rs27..... S.P = Rs28

Profit % = $\frac{1}{7} \times 100 = 14\frac{2}{7} \%$

9. By selling 144 hens Mahesh suffer a loss equal to the selling price of 6 hens. Find his loss percent?

A) 4%
B) 3%
C) 9%
D) $4\frac{1}{2}\%$

View Answer**Option A****Solution:**

$$\text{loss} = \text{C.P} - \text{S.P}$$

S.P of 6 hen = C.P of 144 hens – S.P of 144 hens

S.P of 150 hens = C.P of 144 hens

$$6/150 * 100 = 4\% \text{ loss}$$

10. If a man wants to gain $33\frac{1}{3}\%$ after allowing a discount of $16\frac{2}{3}\%$. Then find how much percent he has to increase his C.P to make M.P ?

A) $33\frac{1}{3}\%$
B) 50%
C) 60%
D) $66\frac{2}{3}\%$

View Answer**Option C****Solution:**

$$\text{gain } 33\frac{1}{3}\% = \frac{1}{3}$$

$$\text{C.P} \dots\dots\dots \text{S.P}$$

$$3 \dots\dots\dots 4$$

$$\text{Discount } 16\frac{2}{3}\% = \frac{1}{6}$$

$$\text{M.P} \dots\dots\dots \text{S.P}$$

$$6 \dots\dots\dots 5$$

Now make S.P same and we will get..

$$\text{C.P} \dots\dots\dots \text{S.P} \dots\dots\dots \text{M.P}$$

$$15 \dots\dots\dots 20 \dots\dots\dots 24$$

$$24 - 15 = 9$$

$$9/15 * 100 = 60\%$$

1. A shopkeeper sold a T.V set for Rs17,940 with a discount of 12.5% and Gained 5%. If no discount is allowed then what will be his gain percent?

A) 20%
B) 25%
C) 30%

D) 15%
E) 18%

View Answer**Option A****Solution:**

$$\text{MP} \dots\dots\dots \text{SP}$$

$$8 \dots\dots\dots 7$$

$$\text{Gain} - 5\% = \frac{1}{20}$$

$$\text{CP} \dots\dots\dots \text{SP}$$

$$20 \dots\dots\dots 21$$

Make SP same.

$$\text{CP} \dots\dots\dots \text{SP} \dots\dots\dots \text{MP}$$

$$20 \dots\dots\dots 21 \dots\dots\dots 24$$

$$\text{MP} - \text{CP} = 4$$

$$(4/20) * 100 = 20\%$$

2. If 8kg of tea price costing Rs56/kg is blended with 32kg of tea of Rs69/kg and 25kg of Rs75/kg and the mixture is sold at 20% profit. Find the selling price (in rupees) of mixture?

A) 82.64
B) 83.64
C) 80
D) 85
E) 84.56

View Answer**Option B****Solution:**

$$(8*56 + 32*69 + 25*75) / 65 = 69.70$$

$$(69.70/100) * 120 = 83.64$$

3. If the price of an article increased by 25% and his expenditure increases by 15%, a person gets 4kg less article. Find the original quantity of article (in kg).

A) 50
B) 54
C) 45
D) 40
E) 48

View Answer

Option A**Solution:**

100

. 115.....125

 $125 - 115 = 10$ $10/125 * T = 4$ $T = 125 * 4/10 = 50$

4. An article is sold at 25% profit. Had it been sold at Rs30 less then there would have been a loss of 25%. What was the cost price (in Rupees)?

A) 75
B) 45
C) 60
D) 90
E) 72

View Answer**Option C****Solution:**Profit = 25% = $1/4$

CP.....SP

4.....5

Loss 25% = CP SP

. 4.....3

In both SPs, difference = $5 - 3 = 2$ $2 = 30$ $1 = 15$ $4 = 60$

5. Even after reducing the marked price of a fan by Rs64, a shopkeeper makes a profit of 15%. If the cost price of fan is Rs640 what percent of profit would have been made if he had sold the fan at the market price?

A) 20%
B) 25%
C) 30%
D) 40%
E) 34%

View Answer**Option B****Solution:**Profit = 15% = $3/20$. So

CP.....SP

20.....23

640.....736

M.P = $736 + 64 = 800$ Profit % = $160/640 * 100 = 25\%$

6. A man gets a profit of 28% after allowing discount of $11(1/9)\%$. Find how much percent the cost price should be increased to make this Mark Price?

A) 40%
B) 45%
C) 44%
D) 46%
E) 52%

View Answer**Option C****Solution:**

Gain - 28% CP.....SP

. 100.....128

Discount $11(1/9)\% = 1/9$

MP.....SP

9.....8

Make SP same

CP.....SP.....MP

100.....128.....144

MP - CP = 44%

7. The sale price of an article including the sales tax is Rs560. The rate of sales tax is $16(2/3)\%$. If the shopkeeper has made a profit of $14(2/7)\%$ then find the cost price (in rupees)?

A) 420
B) 450
C) 500
D) 550
E) 480

View Answer**Option A****Solution:**Sales tax = $16(2/3)\% = 1/6$

After sales tax.....SP

. 7.....6

Gain = $14(2/7)\% = 1/7$

CP.....SP

7.....8

Make SP same

CP.....SP.....sales tax

21.....24.....28

420.....560

8. A horse and a cow were sold for Rs49,500 each. The horse was sold at a loss 10% and cow at a gain of 10%. The entire transaction resulted in?

A) Profit of Rs1000
 B) Loss of Rs1000
 C) No loss, no gain
 D) Profit of Rs2020
 E) Loss of Rs2000

View Answer**Option B**

9. A manufacturer of a certain item can sell all items that he can produce at the selling price of Rs50 each. It cost him Rs30 in materials and labour to produce each item and he has overhead expenses of Rs5000 per week in order to operate the plant. The number of units he should produce and sell in order to make a profit of at least Rs3000 per week?

A) 370
 B) 350
 C) 400
 D) 450
 E) 430

View Answer**Option C****Solution:**

$$50x - (30x + 5000) = 3000$$

$$20x = 8000$$

$$x = 400$$

10. A shopkeeper sold his article at cost price but he uses false weight and gives 400gm instead of 600gm. Find his loss or profit percent?
- A) 62%
 B) 40%
 C) 50%

D) 30%

E) 55%

View Answer**Option C****Solution:**

$$(600-400)/400 * 100 = 200/400 * 100 = 50\%$$

1. An article is sold at 33(1/3)% profit. If it had been sold at a profit of 40%, it would have fetched Rs50 more. Find cost price of article?

A) 700
 B) 750
 C) 600
 D) 650
 E) 720

View Answer**Option B****Solution:**

1st 33(1/3)% profit so CP = 3, and SP = 3+1 = 4

2nd 40% = 2/5. So CP = 5, SP = 7

Now CP is same so make CP same

CP..... SP

15.....20

15.....21

20 to 21 is + 1, so 1 = 50 [increase in SP]

So 15 = 750

2. The percentage of loss when an article is sold at Rs60 is same as that of profit, when it is sold at Rs80.

The above mention profit or loss on the article is?

A) 14(2/7) %
 B) 16(2/3)%
 C) 20%
 D) 25%
 E) 30%

View Answer

Option A**Solution:**

$$CP = 60 + 80/2 = 70$$

$$\text{Profit} = 80 - 70 = 10$$

$$\text{Profit \%} = 10/70 * 100 = 14(2/7)\%$$

3. A businessman sells a commodity at 10% profit. If he had bought it 10% less and sold it for Rs 2 less, then he would have gained $16(2/3)\%$. What is the cost price of the commodity?
- A) 32
B) 48
C) 36
D) 40
E) 30

View Answer**Option B****Solution:**

$$10\% \text{ profit} = 1/10. \text{ So } CP = 10, SP = 10 + 1 = 11$$

Now make CP 10% less, CP becomes = 9,
Now there is $16(2/3)\%$ profit So SP becomes $21/2$

Original SP = 11, final = $21/2$. Difference is $\frac{1}{2}$

$$\text{So } 1/2 == 2 \text{ [Rs 2 less]}$$

$$1 == 4$$

$$\text{and } 10 == 40$$

4. A dishonest shopkeeper sells milk at 20% gain and also he add water in the ratio 4:1 in it. What is his total profit?
- A) 50%
B) 45%
C) 40%
D) 44%
E) 52%

View Answer**Option A****Solution:**

In the case of milk & water. The milk amount is consider as 100. Now during the comparison of water with milk, the water amount is taken as profit %.

See here : M W

$$. \quad 4 : 1$$

. $100 : 25\%$ profit on selling milk on CP but he sold it 20% gain

$$\text{So: } 25 + 20 + (25 * 20)/100 = 50\% \text{ total}$$

5. The price of coal is increased by 20%. By what percent a family should decrease its consumption so that expenditure remains same?
- A) 25%
B) $14(2/7)\%$
C) $16(2/3)\%$
D) 20%
E) $13(1/3)\%$

View Answer**Option C****Solution:**

$$\text{increased } 20\% = 1/5$$

Since there is increase, so decrease in consumption will be $1/(5+1) = 1/6 = 16(2/3)\%$

In there was decrease, so increase in consumption would have been $1/(5-1) = 1/4 = 25\%$

6. After selling 12 balls a man suffer a loss equal to cost price of 6 balls. Find loss percent?
- A) 100%
B) 50%
C) $33(1/3)\%$
D) 40%
E) 30%

View Answer**Option B****Solution:**

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

$$CP \text{ of 6 ball} = CP \text{ of 12 ball} - SP \text{ of 12 ball}$$

$$SP \text{ of 12 ball} = CP \text{ of 6 ball}$$

$$\text{Loss \%} = 6/12 * 100 = 50\%$$

7. A man bought a horse & a carriage for Rs 60,000. He sold the horse at 15% profit and the carriage at a loss of 6%. But still he gained of 1% on overall. The cost price of

the horse was?

- A) 18000
- B) 22000
- C) 25000
- D) 20000
- E) 15000

View Answer

Option D

Solution:

Horse carriage

15%-6

. +1

7..... 14

1 : 2

$1/3 \times 60000 = 20000$

8. A customer saves Rs400 at the rebate of 20% on market price of an article. If the cost price of the article for shopkeeper is Rs1200. Then find the profit percent of shopkeeper?

- A) $33(1/3)\%$
- B) 25%
- C) 20%
- D) $16(2/3)\%$
- E) 30%

View Answer

Option A

Solution:

20% of M.P = 400

M.P = 2000

S.P = 1600

C.P = 1200

Profit % = $400/1200 \times 100 = 33(1/3)\%$

9. A trader wants to earn $16(2/3)\%$ after allowing a discount of 25%. Find by how much % he has to increase his cost price to make M.P?
- A) 50%
 - B) 55.55%
 - C) 40%
 - D) 55%
 - E) 46.55%

View Answer

Option B

Solution:

profit % = $16(2/3)\% = 1/6$. So CP = 6, and
 $SP = 6 + 1 = 7$

Discount = 25% = $1/4$ So MP = 4, $SP = 4 - 1 = 3$

Make S.P Same in both cases

C.P.... S.P..... M.P

18..... 21..... 28

Difference between CP and MP is 10

So $10/18 \times 100 = 55.55\%$

10. Nikita bought 30kg of wheat at the rate of 9.50/kg of wheat and the same amount of wheat at the rate of Rs8.50 per kg and mixed them. She sold the mixture at the rate of Rs 8.90/kg. Find her total profit or loss in the whole transaction?

- A) Rs2 profit
- B) Rs6 loss
- C) Rs2 loss
- D) Rs6 profit
- E) Rs4 loss

View Answer

Option B

Solution:

C.P = $30 \times 9.50 + 30 \times 8.5 = 540$

S.P = $60 \times 8.90 = 534$

So loss of Rs 6.

1. A trader bought two horses for Rs 39,000. He sold one at a loss of 20% and another at a profit of 15%. If the selling price of each horse is same, then what are their cost price respectively?
- A) Rs 20,000 and Rs 19,000
 - B) Rs 23,000 and Rs 16,000
 - C) Rs 24,000 and Rs 15,000
 - D) Rs 21,000 and Rs 18,000
 - E) None of these

View Answer

Option B**Solution:**

.	Horse 1	Horse 2
CP	$5 \times 23 = 115$	$20 \times 4 = 80$
SP	$4 \times 23 = 92$	$23 \times 4 = 92$ [to make SP same]
CP =	$115 + 80 = 195 = 39,000$	
\Rightarrow	$1 = 200$	
	$115 = 23000$	
	$80 = 16000$	

2. The marked price of an article is 60% above the cost price. When marked price is increased by 30% and selling price is increased by 20%, then the profit doubles. What is the original selling price if marked price is Rs 3200?
- A) Rs 2500
B) Rs 3000
C) Rs 2000
D) Rs 4160
E) Rs 5000

View Answer**Option A****Solution:**

CP = 10, so MP = 16
MP = 3200, so CP = 2000
Now See from options
Pick A) 2500
 $2500 - 2000 = 500$ (profit)
If 20% of 2500 is increased, then We will get Rs 500 more, means the profit will get doubled as before
So A) is answer

3. An article passes successfully in the hand of three traders. Each trader sold it further at a gain of 20% of the cost price. If the last trader sold it for Rs 432 then what was the cost price?
- A) Rs 125
B) Rs 256
C) Rs 250
D) Rs 432
E) Rs 500

View Answer**Option C****Solution:**

$20\% = 1/5$

CP	SP
5	6
5	6
5	6
$= 125$	216
$\times 2 = 250$	$\times 2 = 432$
Ans = 250	

4. A dishonest dealer professes to sell his goods at 10% profit on Cost Price and also uses a false weight and gives 900 grams instead of 1 kg. Find his total gain.
- A) 11.11%
B) 22.22%
C) 21.11%
D) 21.1%
E) 23.33%

View Answer**Option B****Solution:**

900 gms in place of 1000 gm
So profit% is $(1000 - 900) / 900 \times 100 = 100/9\%$
10% Profit is on CP also
So required profit% is
 $10 + 100/9 + 10 \times (100/9) / 100$ – successive formula

5. A man buys some toffees at 3 in Re. 1 and some at 3 in Rs 2 and sold them at 1 in Re. 1. Find his gain or loss %.
- A) 200% loss
B) 200% profit
C) 100% loss
D) 100% profit
E) 150 % profit

View Answer**Option D****Solution:**

.	Quantity	Rupee
CP	3	1
CP	3	2
SP =	1	1 (*3 to make

quantity equal)
 hence Sp 3 3
 Total Cp of 6 toffee= 3
 Sp og 6 toffee=6
 hence %p=100%

6. A trader wants to increase his cost price in such a way that after giving 25% discount he earns 20% profit. Find how much percent he increases his Cost Price?

A) 60%
 B) 45%
 C) 50%
 D) 40%
 E) None of these

View Answer

Option A

Solution:

discount=25% =1/4
 MP: SP=4:3
 Profit=20%=1/5
 CP:SP= 5:6
 make ratio equal
 MP:CP:SP=8:5:6
 =3/5*100=60%

7. On selling 15 balls at Rs 400 there is loss equal to Cost Price of 5 balls. The cost price of a ball is?
- A) 20
 B) 30
 C) 40
 D) 50
 E) 60

View Answer

Option C

Solution:

loss= CP-SP
 CP of 5=CP of 15- SP of 15
 CP of 10=SP of 15=400
 CP of 1 =40

8. By selling 12 oranges for Rs 60 a man losses 25%. The number of oranges he has to sell for Rs 100 so as to gain 25% is?

A) 15
 B) 12
 C) 20
 D) 16
 E) 13

View Answer

Option B

Solution:

Loss=25%=1/4 => CP:SP=4:3 ;SP=60
 hence CP=80
 Profit=25%=1/4 => CP:SP=4:5 ; CP=80
 hence SP=100
 for gaining 25% in Rs 100 item he has to sell an item of Rs 80; In Rs 80 12 oranges.

9. A person sold an article at 16 (2/3)% profit on Selling Price. Afterwards when the cost price reduced by 10% then he also reduced the selling price by 10%. His percentage of profit on cost price will be?
- A) 20%
 B) 21%
 C) 19%
 D) 25%
 E) 26 %

View Answer

Option A

Solution:

Profit on SP= 1/6
 SP:CP=6:5 multiply by 10 for easy calculation= 60:50
 60-6 : 50-5=54:45
 =(54-45)/45*100=20%

10. A shopkeeper allows 2% discount and gives 1 article free on purchase of 6 articles. He earns 40% profit during the transaction. By what percent above the cost price he marked his good.
- A) 50%
 B) 60%
 C) 42 (6/7)%
 D) 66 (2/3)%
 E) None of these

View Answer**Option D****Solution:**

$$\text{Discount} = 2\% = 1/50 \quad \text{MP:SP} = 50:49$$

$$\text{Profit} = 40\% = 2/5 \Rightarrow \text{CP:SP} = 5:7$$

$$\text{MP:SP:CP} = 50:49:35$$

This 35 is the CP of (6+1) hence the CP for 6 will be 30

$$(50-30)/30 \times 100 = 66 \frac{2}{3}\%$$

- By selling 20 articles, a person gains CP of 5 articles. Find the profit% incurred by him.
 A) $33 \frac{1}{3}\%$
 B) 25%
 C) 20%
 D) $16 \frac{2}{3}\%$
 E) None of these

View Answer**Option B****Solution:**

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

$$\text{CP of 5 articles} = \text{SP of 20 article} - \text{CP of 20 articles}$$

$$\text{So CP of 25 articles} = \text{SP of 20 articles}$$

$$\text{Profit\%} = 5/20 \times 100 = 25\%$$

- A person wants to sell his goods at 20% profit after allowing a discount of $16 \frac{2}{3}\%$ on marked price. How much % above the cost price should he mark his article?
 A) 20%
 B) $36 \frac{2}{3}\%$
 C) $34 \frac{5}{6}\%$
 D) 44%
 E) 38%

View Answer**Option D****Solution:**

Use formula:

$$\text{MP} = (100+p\%)/(100-d\%) \times \text{CP}$$

OR

$$\text{Profit\%} = 20\% = 1/5 \quad (\text{profit} = 1, \text{CP} = 5)$$

$$\text{SP} = \text{CP} + \text{P} = 5 + 1 = 6 \dots (1)$$

$$\text{Discount\%} = 16 \frac{2}{3}\% = 50/3\% = 1/6$$

$$(\text{discount} = 1, \text{MP} = 6)$$

$$\text{MP} - \text{discount} = \text{SP}$$

$$6 - 1 = 5 \dots (2)$$

Make SP equal in both equations (1) and (2)

Multiply (1) by 5 and (2) by 6

$$\text{so CP : SP : MP} = 25 : 30 : 36$$

$$\text{So see CP and MP, required \%} = (36-25)/25 \times 100 = 44\%$$

- Three successive discounts of 20%, 25% and $16 \frac{2}{3}\%$ is equivalent to
 A) 50% profit
 B) $56 \frac{2}{3}\%$ profit
 C) 40% loss
 D) $125/3\%$ loss
 E) $25/6\%$ profit

View Answer**Option A****Solution:**

Use successive formula:

$$a + b + a \times b / 100$$

$$\text{So} - 20 - 25 + 20 \times 25 / 100 = -40\%$$

$$\text{Next: } -40 - 50/3 + (50)(50/3)/100 = -50\%$$

OR

$$20\% = 1/5 \quad 5 \rightarrow 4$$

$$25\% = 1/4 \quad 4 \rightarrow 3$$

$$16 \frac{2}{3}\% = 1/6 \quad 6 \rightarrow 5$$

Cancel out like this:

$$\begin{array}{ccc}
 \cancel{8} & \rightarrow & \cancel{4} \\
 \cancel{4} & \rightarrow & \cancel{3} \\
 2 & \cancel{6} & \rightarrow & \cancel{5} \\
 2 & & & 1
 \end{array}$$

$$\frac{1}{2} \times 100 = 50\%$$

4. After selling a table worth Rs 12000 at 20% loss, a trader buys a TV with the same money. Next he sold the TV at 20% profit. What is his profit/loss in the whole transaction?
- A) Rs 480 loss
 B) Rs 450 loss
 C) Rs 480 gain
 D) No profit no loss
 E) Rs 420 gain

View Answer

Option A

Solution:

12000 - 2400 (20% loss) = 9600
 9600 + 1920 (20% profit on 9600) = 11520
 So 12000 - 11520 = 480 Rs loss

5. A sold a watch to B at 10% loss. B sold it to C at 11.11% loss and c again sold it to A at 12.5% profit. How much profit/loss % is incurred by A?
- A) 10% profit
 B) 12% profit
 C) 10% loss
 D) 15% loss
 E) No profit no loss

View Answer

Option E

Solution:

A to B to C

A to B 10% loss, 10% = 1/10. So SP for A = 10 - 1 = 9

B to C 11.11% loss, 11.11% = 1/9, so SP for B = 9 - 1 = 8

C to A 12.5% profit, 12.5% = 1/8, so SP for C or CP for A = 1 + 8 = 9

A first sold to B at 9, and after he got from C at 9, so no profit no loss

6. After selling an article at some price, a trader gain 20% on the selling price. Find his profit% on the cost price.
- A) 50%
 B) 33 1/3%
 C) 16 2/3%
 D) 25%
 E) 15 1/5%

View Answer

Option D

Solution:

Profit = 20% on SP

20% = 1/5, (1 - profit, 5 - SP)

CP = SP - Profit

4 = 5 - 1

so profit% on CP = profit/CP * 100 = 1/4 * 100 = 25%

7. A man bought some toffees at the rate of 3 toffees per Re. and same number at the rate of 2 toffees per Re. He mixes them and sold 3 toffees for Rs 2. Find his profit/loss% in the whole transaction.
- A) 20% loss
 B) 20% profit
 C) 60% loss
 D) 60% profit
 E) None of these

View Answer

Option D

Solution:

Let he buys 6 toffees

Case 1: 3 toffees per Re so 6 toffees for Rs 2

Case 2: 2 toffees per Re so 6 toffees for Rs 3

Total CP of 12 toffees = $2+3 = 5$

Now he sold at 3 for Rs 2. So 12 toffees for Rs 8

Now CP = Rs 5, SP = Rs 8, so profit% = $\frac{3}{5} \times 100 = 60\%$ profit

8. A shopkeeper sold his articles at cost price. But he used false weights and gives 800 gm instead of 1 kg. Find his profit%.
- A) $16 \frac{2}{3}\%$
 B) 20%
 C) 10%
 D) $33 \frac{1}{3}\%$
 E) None of these

View Answer

Option E

Solution:

CP of 1000 gm = SP of 800 gm

So gain% = $\frac{(1000-800)}{800} \times 100 = 25\%$

9. A trader sold his goods at 20% profit and along with this he used weights of 800 gm instead of 1 kg. Find his total profit%.
- A) 40%
 B) 45%
 C) 50%
 D) 55%
 E) 60%

View Answer

Option C

Solution:

Profit is 20%. So

$1000 \text{ gm} + 20\% \text{ of } 1000 \text{ gm} = 1200 \text{ gm}$

so CP of 1200 gm = SP of 800 gm

Sp profit% = $\frac{(1200-800)}{800} \times 100 = 50\%$

10. A loss of 20% is made by selling an article. Had it been sold for Rs 240 more, there would have been a profit of 10%. What would be the selling price of the article if it is sold at 25% profit?
- A) Rs 950
 B) Rs 1020
 C) Rs 975
 D) Rs 1000
 E) Rs 1075

View Answer

Option D

Solution:

Loss = 20% = $\frac{1}{5}$ (loss = 1, CP = 5)

CP - Loss = SP

$5 - 1 = 4 \dots\dots\dots(1)$

Profit% = 10% = $\frac{1}{10}$ (Profit = 1, CP = Rs 10)

CP + P = SP

$10 + 1 = 11 \dots\dots\dots(2)$

Make CP same in both equations (1) and (2) by multiplying (1) by 2. SO

$10 - 2 = 8$

And $10 + 1 = 11$

So first, SP was 8, now is 11

So $(11-8) \rightarrow 240$

$3 \rightarrow 240$

So 10 (CP) $\rightarrow \frac{240}{3} \times 10 = 800$

So after 25% profit SP $\rightarrow 1000$