CLASS 8

SUBJECT :Arithmetic

Work sheet 23 answer key

Marks:15

Revision – Profit & Loss continued

Date:2.5.2020

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

1.A man buys an article for Rs 80 and marks it at Rs120. He then allows a discount of 40%. What is the loss or gain% ?

(a)12% gain   (b)12% loss   (c)10% gain   (d)10% loss

2.Ramesh bought a calculator with 20% discount on the tag-price. He obtained 10% profit by selling it for Rs 440. What was the tag-price ?

(a)Rs 500   (b)Rs 400   (c)Rs 480   (d)Rs 360

3.A dealer allows 25% discount on the marked priceof articles and earns a profit of 20% on them. Whatis the marked price of the article on which he gains Rs 800?

(a)Rs 6000   (b)Rs 6400   (c)Rs 7200   (d)Rs 7000

4.Shekhar has purchased a cordless phone for Rs 3520 after getting 12% discount on the printed price. If he sold it to get 8% profit on the printed price, at what price did he sell the cordless phone ?

(a)Rs 3801.60   (b)Rs 4224   (c)Rs 4320   (d)Rs 3942.40

5.An article listed at Rs 800 is sold at successive discounts of 25% and 15%. The buyer desires to sell it off at a profit of 20% after allowing a 10%discount. What would be his list price ?

(a)Rs 620   (b)Rs 600   (c)Rs 640   (d)Rs 680

6.By selling an umbrella for Rs 300, a shopkeeper gains 20%. During a clearance sale, the shopkeeper allows a discount of 10% on the marked price. Find his gain per cent during the sale season

.(a)10%   (b)8%   (c)12%   (d)9%

7.What is more favourable for a buyer — A discount series of 20%, 15% and 10% or a discount series of 25%, 12% and 8% ?

(a)First   (b)Second   (c)Both first and second   (d)None

8.A dealer marks his goods 25% above the cost price and allows 10% discount to his customers. What is his gain per cent ?

(a)12.5   (b)35   (c)15   (d)17.5

9.By selling an article at 80% of the marked price,there is a loss of 10%. If the article is sold at the marked price, the profit per cent will be

(a)18.4   (b)20   (c)12.5   (d)15

10.The marked price of an electric iron is Rs 300. The shopkeeper allows a discount of 12% and still gains10%. If no discount is allowed his gain percentage would have been

 (a)20   (b)25   (c)27   (d)30

11.A sells a scooter priced Rs 36000. He gives a discount of 8% on the first Rs 20000 and 5% on the next Rs 10000. How much discount can he afford on the remaining Rs 6000, if he is to get as much as when 7% discount is allowed on the total ?

(a)5%   (b)6%   (c)7%   (d)8%

12.If 10% discount is allowed on the marked price of an article, the profit of a dealer is 20%. If he allows a discount of 20% his profit will be

(a)413%   (b)5%   (c)623%   (d)8%

13.A fan is listed at Rs 1500 and a discount of 20% is offered on the list price. What additional discount must be offered to the customer to bring the net price to Rs 1104.

(a)8%   (b)10%   (c)12%   (d)15%

14.At what per cent above the cost price must a shopkeeper mark his goods so that he gains 20%even after giving a discount of 10% on the marked price

.(a)25%   (b)30%   (c)33 1/3%   (d)37 1/2%

15. A shopkeeper sells a badminton racket whose marked price is Rs 30 at a discount of 15% and gives a shuttle cock costing Rs 1.50 free with each racket.Even then he makes a profit of 20%. His cost price per racket is

(a)Rs 21   (b)Rs 21.25   (c)Rs 20   (d)Rs 19.75

ANSWERS

1.(d)2.(a)3.(b)4.(c)5.(d)6.(b)7.(b)8.(a)9.(c)10.(b)11.(c)12.(c)13.(a)14.(c)15.(c

Hints and Solutions

1. (d) C.P. = Rs 80, M.P. = Rs 120, Discount = 40%

∴   S.P. = 60% of Rs 120 = $\dfrac{60}{100}$ × Rs 120 = Rs 72

∴   Loss = Rs 80 – Rs 72 = Rs 8

Loss % = $\dfrac{8}{80}$ × 100 = 10%.

2. (a) Let the tag price of the calculator Rs x. Then, C.P. of Ramesh after 20% discount = 80% of

Rs x = Rs $\dfrac{80x}{100}$ = Rs $\dfrac{4x}{5}$ ... (i)

Also, given S.P. = Rs 440 and Profit = 10%

∴   C.P. = Rs $\left(\dfrac{440 \times 100}{110}\right)$ = Rs 400   ... (ii)

From (i) and (ii)

∴ $\dfrac{4x}{5}$ = 400   ⇒ x = Rs 500

3. (b) Let the M.P. = Rs 100. Discount = 25%

12. (c) Let the M.P. of the article = Rs 100

Discount = 10%

$\therefore$ S.P. = 90% of Rs 100 = Rs 90, Profit = 20%

$\therefore$ C.P. = Rs $\dfrac{90 \times 100}{120}$ = Rs 75

If the discount is 20%, then S.P. = 80% of Rs 100 = Rs 80

$\therefore$ Required profit % = $\dfrac{(80-75)}{75} \times 100$

$= \dfrac{5}{75} \times 100 = 6\dfrac{2}{3}\%$

13. (a) M.P. = Rs 1500, Discount = 20%

$\therefore$ S.P. = 80% of Rs 1500 = Rs 1200

Final S.P. = Rs 1104

$\therefore$ Additional discount = Rs 1200 – Rs 1104 = Rs 96

$\therefore$ Additional discount rate = $\dfrac{96}{1200} \times 100$ = 8%

14. (c) Let the M.P. be Rs x. Discount = 10%

$\therefore$ S.P. = 90% of Rs x = Rs $\dfrac{9x}{10}$, Profit = 20%

C.P. = $\dfrac{\dfrac{9x}{10} \times 100}{120} = \dfrac{3}{4}x$

$\therefore$ Reqd. per cent = $\dfrac{\left(x - \dfrac{3}{4}x\right)}{\dfrac{3}{4}x} \times 100$

$= \dfrac{100}{3}\% = 33\dfrac{1}{3}\%$

15. (c) M.P. of the racket = Rs 30, Discount = 15%

$\therefore$ S.P. of the racket = $30 \times \dfrac{85}{100}$ = Rs 25.50

S.P. when a shuttle cock costing Rs 1.50 is given free = Rs 25.50 – Rs 1.50 = Rs 24

Profit = 20%

S.P. for the 1st discount series

$= \dfrac{80}{100} \times \dfrac{85}{100} \times \dfrac{90}{100} \times 100$ = Rs 61.20

S.P. for the 2nd discount series

$= \dfrac{75}{100} \times \dfrac{88}{100} \times \dfrac{92}{100} \times 100$ = Rs 60.72

$\therefore$ The second discount series is more favourable.

8. (a) Let the C.P. of the goods be Rs 100. Then,

M.P. of the goods = Rs 125, Discount = 10%

$\therefore$ S.P. of the goods = 90% of Rs 125

$= \dfrac{90}{100} \times$ Rs 125 = Rs 112.5

$\therefore$ Gain% = $\dfrac{(112.5-100)}{100} \times 100$ = 12.5%.

9. (c) Let M.P. = Rs 100, S.P. = 80% of M.P. = Rs 80

Loss = 10% $\Rightarrow$ C.P. = Rs $\dfrac{(80 \times 100)}{90}$ = Rs $\dfrac{800}{9}$

Had S.P. been equal to the M.P., i.e., S.P. = Rs 100, then

Profit% = $\dfrac{\left(100 - \dfrac{800}{9}\right)}{\dfrac{800}{9}} \times 100 = \dfrac{\dfrac{100}{9}}{\dfrac{800}{9}} \times 100$

$= \dfrac{10000}{800}$ = 12.5%

10. (b) M.P. = Rs 300, Discount = 12%

$\therefore$ S.P. = Rs 300 – 12% of Rs 300 = Rs 300 – Rs 36 = Rs 264

Gain = 10%

$\therefore$ C.P. = Rs $\left(\dfrac{264 \times 100}{110}\right)$ = Rs 240

Had there been no discount, S.P. would have been Rs 300

$\therefore$ Profit% = $\dfrac{(300-240)}{240} \times 100 = \dfrac{60}{240} \times 100$ = 25%

11. (c) Discount on Rs 36000 at 7% = $\dfrac{7}{100} \times$ Rs 36000 = Rs 2520

Discount on Rs 20000 at 8% = $\dfrac{8}{100} \times$ Rs 20000 = Rs 1600

Discount on Rs 10000 at 5% = $\dfrac{5}{100} \times$ Rs 10000 = Rs 500

$\therefore$ Discount on remaining Rs 6000

= Rs 2520 – Rs (1600 + 500)

= Rs 2520 – Rs 2100 = Rs 420

$\therefore$ Discount % = $\dfrac{420}{6000} \times 100$ = 7%.

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