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# TERM - II

## (Syllabus Split-up)

Ch. 10 Profit and Loss ③ (PT-II)

Ch. 11 Compound Interest ③

Ch. 14 Polygon ① (PT-II)

Ch. 15 Quadrilaterals ①

Ch. 16 Parallelograms ①

Ch. 18 Area of trapezium ②

Ch. 20 Volume and Surface Area of Solids ②

Ch. 21 Data Handling ② (PT-II)

Ch. 22 Line graph. - ① (PT-II)

# Profit, Loss and Discount

Formula :-

I. $$\frac{SP}{MP} = \frac{100 - D\%}{100}$$

II. $$\frac{CP}{MP} = \frac{100 - D\%}{100 + P\%}$$

Qus:- The Marked Price of a water cooler is ₹ 4650. The shopkeeper offers an off-season discount of 18%. Find its selling price.

Sol:- Marked price of water cooler = ₹ 465
Discount = 18%

$$\frac{SP}{MP} = \frac{100 - \text{Discount}}{100}$$

$$\frac{SP}{4650} = \frac{(100 - 18)\%}{100}$$

$$\frac{SP}{4650} = \frac{82}{100}$$

$$SP = \frac{4650 \times 82}{100}$$

$$SP = 93 \times 41 = ₹\ 3813$$

Selling Price of article is ₹ 3813

Q. (I) 1, 2, 3, 4, 5 (III) 13, 14
(II) 8, 9, 10, 11, 12,

Q. After allowing a discount of 10% on the marked price, a trader still makes a gain of 17%. By what % is the marked price above the cost price?

Sol:- Discount of article = 10%
gain = 17%

$$\frac{CP}{MP} = \frac{100 - D\%}{100 + P\%}$$

$$\frac{CP}{MP} = \frac{(100 - 10\%)}{(100 + 17\%)}$$

$$\frac{CP}{MP} = \frac{\cancel{90}\ 30}{\cancel{117}\ 39}$$

Profit = 39 − 30 = 9

$$\text{Profit \%} = \frac{9^{3}}{\cancel{30}} \times \cancel{100} \qquad \left[\frac{\text{Profit}}{CP} \times 100\right]\%$$

∴ Profit = 30% Ans

Q. How much % above the cost price should a shopkeeper mark his goods so that after allowing a discount of 25% on the marked price, he gains 20%

Sol:- Let cost price be $x$

Selling price = (100+8) = ₹ 108

$$\text{Discount} = \frac{10 \times x}{100} = \frac{x}{10}$$

$$\therefore \quad x - \frac{x}{10} = 108$$

$$\frac{10x - x}{10} = 108$$

$$9x = 1080$$

$$x = 120$$

Hence, the marked price is (120 - 100) = 20%.

## Sales Tax / value Added Tax (VAT)

SALES TAX:- Sales Tax is charged by the shopkeeper from the customer on selling price of an item and is added to the value of the bill.

VAT:- The price of the articles include the tax, called VAT

Ans:- The cost of a TV set at a showroom was ₹ 36500. The sales tax charged was 8%. Find all the bill amount.

Sol:- Cost of TV set = ₹ 36500

Sales tax = 8% of 36500

$$= \frac{8}{100} \times 36500$$

$$= 8 \times 365$$

$$= ₹\ 2920$$

Bill amount = 36500 + 2920

∴ Bill amount = ₹ 39420 Ans

Q. 1, 2, 3, 4

Mohini bought a computer for ₹ 379 including VAT at 4%. What is the Original price of the computer?

Q. 6, 7, 8

Let the original price of the computer $x$

$$\text{VAT} = 4\% \text{ of } x = \frac{4}{100} \times x = \frac{x}{25}$$

$$\therefore \text{Price including VAT} = \left(x + \frac{x}{25}\right) = \frac{26x}{25}$$

$$\frac{26x}{25} = 37960$$

$$x = \frac{37960 \times 25}{26}$$

$$x = 36500$$

Hence, the original price of Computer is ₹ 36500 Ans

VAT including Qus. Q. 3, 4, 5, 6, 7

Qus:- Mohit bought a shirt for ₹ 1337.50 including VAT at 7%. Find the original Price of the shirt.

Sol:- Let original Price of the shirt be ₹ $x$

$$\text{VAT} = 7\% \text{ of } x = \frac{7}{100} \times x = \frac{7x}{100}$$

$$\therefore \text{Price including VAT} = x + \frac{7x}{100} = \frac{107x}{100}$$

$$\Rightarrow \quad 1337.50 = \frac{107x}{100}$$

$$\Rightarrow \quad \frac{107x}{100} = \frac{133750}{100}$$

$$107x = 133750$$

$$x = \frac{133750}{107}$$

$$x = 1250$$

Hence, Original Price of the shirt is ₹ 1250

Q. 9, 10, 11
VAT % based

Ques:- Rohit Purchased a pair of shoes ₹ 882 inclusive of VAT. If the original Price of VCR be ₹ 840. find the rate of VA

Sol:- Let the rate of VAT be x %

$\Rightarrow$ 840 + x % of 840 = 882

$\Rightarrow$ $\frac{x}{100} \times 840 = 882 - 840$

$\frac{84x}{10} = 42$

$x = \frac{42 \times 10}{84}$ (5)

$x = 5\%$

$\therefore$ Rate of VAT is 5 % ~~Ans~~

19980
18500
1480

Qus:- Malti bought a VCR for ₹ 19980 including VAT. If the original price of VCR be ₹ 18500, find the rate of VAT.

Sol:- Let the rate of VAT be $x$%

$18500 + x\%$ of $18500 = 19980$

$\Rightarrow \frac{x}{100} \times 18500 = 19980 - 18500$

$185x = 1480$

$\Rightarrow x = \frac{1480}{185}$

$x = 8\%$

Hence, Rate of VAT = 8% ~~Ans~~

# GURUKUL INTERNATIONAL SCHOOL

SESSION 2024-25
PROXY WORSHEET

Ch.-10 PROFIT AND LOSS
CLASS: - VIII

LEVEL - I
SUBJECT : MATHS

Q.1 A student buys a pen for Rs 90 and sells it for Rs 100. Find his gain and gain %

Q.2 The cost price of 10 articles is equal to the selling price of 9 articles. Find the profit percent.

Q.3 If the selling price of 18 oranges is equal to the cost price of 16 oranges, find the loss percent.

Q.4 . Find the S.P.
if (i) M.P. = Rs 1300 and Discount = 10%
(ii) M.P. = Rs 500 and Discount = 15%

Q.5 On the eve of Gandhi Jayanti a sari is sold for Rs. 720 after allowing 20% discount. What is its marked price?

Q.6 A tradesman marks his goods at such a price that after allowing a discount of 15%, he makes a profit of 20%. What is the marked price of an article whose cost price is Rs. 170?

Q.7 The marked price of a water cooler is Rs 4650. The shopkeeper offers an Off-season discount of 18% on it. Find its selling price

Q.8 After allowing a discount of 8% on a toy, it is sold for Rs 216.20. Find the marked price of the toy

Q.9 A dealer marks his goods at 35% above the cost price and allows a discount of 20% on the marked price. Find his gain or loss per cent.

Q.10 The marked price of TV is Rs 18500. A dealer allows two successive discounts of 20% and 5%. For how much is the TV available?

Q.11 How much per cent above the cost price should a shopkeeper mark his goods so that after allowing a discount of 10% on the marked price, he gains 8%?