Profit and Loss: 14 Important Shortcuts & Tricks Explained

Profit and loss problems are frequently asked problems in competitive exams. Profit and loss is the branch of basic mathematics which deals with the study of profit and loss made in a business transaction. The profit and loss account is fundamentally a summary of the trading transactions of a business and shows whether it has made a profit or loss during a particular period of account. Indeed, by deducting the total expenditure from total income the profit or loss of a business can be calculated. Along with the balance sheet, it is one of the key financial statements that make up a company's statutory accounts. Basically, this type of account shows the following information for a business:

a) Sales revenue earned by business
b) Cost of sales that the business has incurred
c) Other operating costs incurred by the business
d) Profit/Loss earned by business.

Profit and loss is mainly used in finance and business transactions. Some important profit and loss formulas are: Notations used in profit and loss: S.P. – Selling price C.P. – Cost price M.P. – Marked Price.

Points to remember :

* To find profit or loss when cost price and selling price are given.

(i). When Selling Price > Cost Price, There is a Profit and it is given by Selling Price - Cost Price.

(ii). When Selling Price < Cost Price, There is a Loss and it is given by Cost Price - Selling Price.

* The Profit or Loss is generally reckoned as so much per cent on the cost.

Gain or loss per cent
= (Loss or Gain / CP)× 100

* C.P in terms of S.P and P%
C.P = [(S.P *100)/(100+P%)]
* C.P in terms of S.P and L%
C.P = [(S.P *100)/(100-L%)]
* S.P in terms of C.P and P%
S.P = [C.P*(100+P%)/100]
* S.P in terms of C.P and L%
S.P = [C.P*(100-L%)/100]

Some shortcuts :

Trick-1:

If persons sells two same items one at profit of x%, another at x% of loss.then, always loss occurs given by

Loss % = (square of x)/10

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Trick-2:
If a trader uses false weight.then
Profit% =
[True weight - false weight / false weight]*100
Ex:A shopkeeper professes to sell his goods at cost price but uses a weight of 800gm instead of 1kg. thus he makes a profit of?
a. 20% b. 16.2/3 c. 25 d. 50
Sol : (200/1000-200)*100 = 25 %

Trick-3:
If cost price of P articles is equal to selling price of Q articles [P>Q].then,
Profit% = [(P-Q)/Q] * 100

Trick-4:
If a person marks his P% above the cost price and offers a discount of Q%.then,
Profit% or Loss%
= [P - Q - (P * Q)/100]

Trick-5:
If there are two successive profits R1% and R2%.then,
Profit% = [R1 + R2 + (R1*R2)/100]

Trick-6:
If there are profit R1% and loss R2%.then,Total Profit% or Loss%
= [R1 - R2 - (R1*R2)/100]

Trick-7:
i. If P sells an item to Q at profit of R1%. then, Q sells that item to R at profit of R2%. Then, R sells that item to S at profit of R3%. Then, cost price of S is
= (Cost price of P)*(1+R1/100)
* (1+R2/100)* (1+R3/100)
ii. If P sells an item to Q at loss of R1%. then, Q sells that item to R at loss of R2%. Then, R sells that item to S at loss of R3%. Then, cost price of S is
= (Cost price of P)*(1-R1/100)
* (1-R2/100)* (1-R3/100)
ii. If P sells an item to Q at profit of R1%. then, Q sells that item to R at loss of R2%. Then, R sells that item to S at profit of R3%. Then, cost price of S is
= (Cost price of P)*(1+R1/100)
* (1-R2/100)* (1+R3/100)
Note:if he sells at loss. Then, Represented by ' - ' .he sells at profit. Then, Represented by ' + '

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Trick-8:
If the profit earned by selling a painting for Rs x is equal to the loss incurred when the same painting is sold for Rs y, then to make z% profit the sale price of the painting should be

Rs [(x + y)(100 + z)] * 200

Trick-9:
If a reduction of x % in the price of rice enables a person to buy n kg more for Rs A, then the reduced price per kg of the rice are
[(A*x)/(100 - n)]per kg and original prices per kg of the rice are
[(A * x)/(100 - n) * x] per kg

Trick-10:
If 'a' articles are bought for Rs 'b' and sell them 'c' articles for Rs 'd'. Then profit or loss made by the vender:
[[(a*d) - (b*c)] /b*c]*100

Trick-11:
If a object sold at X then L% loss occured,inorder to get P% profit.The object has to sold at

=[(100 + P)/(100 - L)] * (selling price at L%)

Trick-12: The ratio of the cost price and the selling price is m:n. The profit or loss percent is

Profit% = [(m-n)/m]*100
Loss% = [(n-m)/m]*100

Ex: The ratio of the cost price and the selling price is 4:5. The profit percent is?
a. 10 b. 20 c. 25 d. 30
Sol: Profit% = [(5-4)/4]*100 = 25%

Trick-13:
If on selling 'm' notebooks a seller makes a profit (if loss)equal to selling price of 'n' notebook, the profit percentage is

= [n/(m-n)] * 100

Loss percentage is

= [n/(m+n)] * 100

Ex: If on selling 12 notebooks a seller makes a profit equal to selling price of 4 notebook, what is his profits percentage?
a. 16.2/3 b. 25 c. 50 d. None of these
Sol : P% = [4 /(12-4)]*100 = 50%

Trick-14:

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Some article were brought of m for rs. n. And sold at n for rs. m. Gain percentage is (m > n)

= [[(m*m)-(n*n)]/(n*n)]*100

Ex:Some article were brought of 6 for rs. 5. And sold at 5 for rs. 6. Gain percentage is?

a. 30. b. 33.1/3 c. 35 d. 44

Sol: [(36-25)/25]*100 = 44%

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