# Profit Loss Discount

**Finding Profit / Loss %**

1. Suppose a shopkeeper buys a pen at Rs 8 from the market and sells it at Rs 10 at his shop.find Profit %?

   Cost Price = 8                     **or** Cp=100% = 8
   Selling price = 10                    Profit = ? = 2
   Profit = 10-8=2                       Cross Multiplying = 2/8*100 = 25%
   Profit % = 2/8*100 = 25%

2. The Cost price of FAN is Rs.500 and it sold for Rs.450. Find Loss Percent?

   Cp = 100 % = 500
   Loss= ?   = 50
   Loss % = 50 *100/500 = 5%

3. If the cost price of 12 pens is equal to the selling price of 8 pens, the gain percent is ?

   Cp = 100 % = 8
   Profit = ?   = 4
   Profit %= 4/8*100= 50%

4. By selling an article at Rs.800, a shopkeeper makes a profit of 25%.At what price should he sell the article so as to make a loss of 25%?

   sp= 125= 800
   Sp= 75  = ?
   Sp= 75 *800/125
   = 480

5. A person incurs a loss of 5% by selling a watch for Rs. 1140. At what price should the watch be sold to earn 5% profit.

   Sp = 95% =1140
   Sp = 105 % = ?
   SP= 105*1140/95 = 1260

6. If the manufacturer gains 10 %, the wholesale dealer 15 % and the retailer 25 %, then find the cost of production of a table if the retail price was Rs 1265.

   Let the cost of production be Rs. P.
   As per question,
   $\Rightarrow$ 125/100×115/100×110/100×P = Rs. 1265
   P = Rs. 800

7. A dishonest shopkeeper used a weight of about 800 gm for 1 kg weight. Find his profit percentage.
   Profit= 200/800*100 =25%

8. A person sells 36 oranges per rupee and suffers a loss of 4%. Find how many oranges per rupee to be sold to have a gain of 8%
   Cp Of 1 orange = 1/36 = 100%
   Sp of 1 orange = ?= 108%
   Sp of 1 Orange = 108/ 100* 1/36= 1 /32
   For 1 Rupee = (32/1) = 32 oranges

9. A man sells a car to his friend at 10% loss. If the friend sells it for Rs.54000 and gains 20%, the original C.P.of the car was :
   Let original price = P
   Now 90/100*120*100*P=54000
   p= 54000* 100*100* / 90*120 = 50000

10. Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is:
    Cp = 100 % = 4700+800= 5500
    Sp = x=5800
    Gain = 300
    Gain % = 300/5500*100
    =5.4%

**Profit Loss Equal Percent:**

11. The profit earned after selling on article for Rs. 1666 is the same as the loss incurred after selling the article for Rs. 1252. What is the cost price of the article?
    Total Cp=Total Sp
    = 1666+1252 = 2918
    Cost Price of 1 article= 2918=1459

12. The percentage profit earned by selling an article for Rs. 1920 is equal to the percentage loss incurred by selling the same article for Rs. 1280. At what price should the article be sold to make 25% profit?
    Cp = (1920+1260) / 2 = 1600 =100%
    Sp= ? = 125%
    Sp= 125*1600/100= 2000
    **Over All Profit**

13. Meena bought two fans for Rs. 1200 each and sold one at a loss of 5% and other at a profit of 10%. What will be the total loss or profit %?
    Over all Profit= (a+b)/2
    = 10-5/2= 2.5 % profit

14. A merchant buys some goods worth Rs. 4000 and sells half of them at a profit of 10%. At what profit percentage must he sell the remainder so as to get profit of 16% on the whole?
    Overall profit= 16=a+10/2
    a=32-10= 22%

15. A Shopkeeper sells two articles at Rs.1000 each, making a profit of 20% on the first article and a loss of 20% on the second article. Find the net Profit or loss that he makes?
    Here Definitely loss,
    loss= (x/10)^2
    = (20/10)^2= 4% loss

**Discount:**
16. Successive discounts of 40% and 30% are equivalent to a single discount of?
    Let Marked Price= 100
    40% of 100= 40
    Now sp = 100-40= 60
    30% of 60= 18
    Final Sp = 60-18=42
    Now single discount= 100-42 = 58%

17. A trader lists his article at 15% above cost price and allows a discount of 5% on cash payment. Find his profit per cent.
    Let Cost Price= 100
    Marked Price =100+15=115
    5% of 115=5.75
    Final Sp = 115-5.75=109.25
    Profit=9.25%

18. The marked price of a watch is Rs.480. The seller allows a discount of 10% and gains 8%. If no discount is allowed, find his profit %
    M.P=480
    10% of 480=48
    S.P= 480-48=432 @8% Profit
    Original C.P= 100%=x
    S.P= 108% =432
    X=432*100/108=400

Profit%=80*100/400=20%

19. The difference between the discount of 35% and two successive discounts of 20% each on a certain bill was Rs.22. Find the billed amount?
M.P=100
35% of 100=35
S.P=65
M.P=100
20% of 100=20
S.P=80
20% of 80=16
Final S.P=80-16=64
Difference between S.P= 65-64=1
Given Difference =22
1=100
22=X
X=2200

20. A dealer marks his goods 25% above the cost price. He then allows some discount on it and makes a profit of 10%. Find the rate of discount.

C.P=100
M.P=100+25=125
Profit %=10%
S.P=110
Discount=M.P-S.P
125-110=15
D%=15*100/125=12%