SES'S L.S. RAHEJA COLLEGE OF ARTS AND COMMERCE

Course: Business Mathematics | Unit: Unit 1 & 2 | Prepared by: Asst. Prof. Mehul Barai

1. A person bought 2 purses at Rs 500 each. He sold one at 10% profit and the other 2 % loss. Find his total percentage of gain or loss.

   N.S.P. of the first purse = $\frac{(100+p\%)}{100} * c.p.$

   $=\frac{(100+10)}{100} * 500$

   = Rs.550.

N.S.P. of the second purse $=\frac{(100-l\%)}{100} * 500$

$= \frac{(100-2)}{100} * 500$

= Rs 490.

Total Profit = Total N.S.P. – Total C.P.

= 1040 - 1000 = Rs 40

P% = $\frac{total\ profit}{total\ c.p.} * 100$

$= \frac{4}{1000}*100 = 4\%$.

2. A person sold 2 necklaces for Rs 990 each and thus earned a 10% profit on one and incurred a 10% loss on the other. Find total percentage profit or loss.
3. A and B are partners sharing profit in the ratio 3:7. they admit C, giving him 3/13th share in the total profit. In what ratio will A, B and C share the total profit?

   C's share = $\frac{3}{13} * total\ profit$

   Remaining Profit = (Total Profit) - $\frac{3}{13}$ (Total profit)

   = (1 - $\frac{3}{13}$) (total profit)

   $=\frac{10}{13}$

   A's share = $\frac{3}{10}$* remaining profit

   $= \frac{3}{10}*\frac{10}{13}$ (Total profit)

   $= \frac{3}{13}$

   B's share = $\frac{7}{10}$* remaining profit

   $= \frac{7}{10}*\frac{10}{13}$ (Total profit)

   $= \frac{7}{13}$

   A, B and C will share the total profit in the ratio 3:7:3.

4. A and B are partners sharing profit in the ratio 4: 5. they admit C, giving him 1/10th share in the total profit. In what ratio will A, B and C share the total profit?
5. A, B and C invested Rs 50000, and Rs 40000 and Rs 90000 respectively in a business. At the end of the year, A received Rs 8000 as his share in the profit. Find the total profit. Also find B's and C's share of profit.

   Profit sharing ratio 5:4:9.

   A's share = $\frac{5}{18}$ * Total Profit = 8000

   = $\frac{18}{5}$*8000 = Rs 28,800

   B's share = $\frac{4}{18}$*28800 = Rs 6,400

   C's share = $\frac{9}{18}$*28800 = Rs 14,400

6. A, B and C invested Rs 70000, and Rs 50000 and Rs 80000 respectively in a business. At the end of the year, C received Rs 16000 as his share in the profit. Find the total profit. Also find B's and A's share of profit.
7. A firm allows a trade discount of 30% on the list price and further discount of 2% on cash payment. Find the cost price of an item, which is marked at rupees 4000/-and is sold with a profit, at the rate of 37.2%.

   I.P. = $\frac{(100-T.D.\%)}{100}$ * L.P.

   = $\frac{(100-30)}{100}$ * 4000

   = 2800

   N.S.P. = $\frac{(100-C.D.\%)}{100}$ * I.P.

   = $\frac{(100-2)}{100}$ * 2800

   = 2744

   N.S.P. = $\frac{(100+P\%)}{100}$ * c.p.

   2744 = $\frac{(100+37.2)}{100}$ * c.p.

   c.p. = Rs 2000.
8. A firm allows a trade discount of 25% on the list price and further discount of 4% on cash payment. Find the cost price of an item, which is marked at rupees 830/-and is sold with a profit, at the rate of 19.52%.

I have done one sum of each type and given one sum as an assignment. Answer for the above assignment will be given in next Tutorial lesson.