



Q11. Sandeep and Navdeep are partners in a firm sharing profits in 5:3 ratio. They admit C into the firm and the new profit sharing ratio was agreed at 4:2:1. Calculate the sacrificing ratio?

Solution:

$$\begin{array}{l} \text{Old Ratio} = \begin{array}{cc} \text{Sandeep:} & \text{Navdeep} \\ 5: & 3 \\ = & \frac{5}{8} : \frac{3}{8} \end{array} \end{array}$$

$$\begin{array}{l} \text{New Ratio} = \begin{array}{ccc} \text{Sandeep:} & \text{Navdeep:} & \text{C} \\ 4: & 2: & 1 \\ = & \frac{4}{7} : \frac{2}{7} : & \frac{1}{7} \end{array} \end{array}$$

Sacrificing Ratio = Old Ratio - New Ratio

$$\text{Sandeep} = \frac{5}{8} - \frac{4}{7} = \frac{35 - 32}{56} = \frac{3}{56}$$

$$\text{Navdeep} = \frac{3}{8} - \frac{2}{7} = \frac{21 - 16}{56} = \frac{5}{56}$$

$$\begin{array}{l} \text{Sacrifice Ratio} = \begin{array}{cc} \text{Sandeep:} & \text{Navdeep} \\ \frac{3}{56} : & \frac{5}{56} \\ 3: & 5 \end{array} \end{array}$$

Note: Answer given the book is different. However, as per the solution sacrificing ratio is 3:5.

Q12. Rao and Swami are partners in a firm sharing profits and losses in 3:2 ratio. They admit Ravi as a new partner for $\frac{1}{8}$ share in the profits. The new profit sharing ratio between Rao and Swami is 4:3. Calculate new profit sharing ratio and sacrificing ratio?

Solution:

Rao: Swami
 Old Ratio= 3: 2

Ravi admits for $\frac{1}{8}$ share of profit in new firm

Let the New Firm Profit =1

Combined share of Rao and Swami in the new firm

= 1 - Ravi's share of profit

$$= 1 - \frac{1}{8}$$

$$= \frac{7}{8}$$

New Ratio = Combined Share of Rao and Swami \times Proportion of Rao and Swami in the Combined Share

$$\text{Rao} = \frac{7}{8} \times \frac{4}{7} = \frac{28}{56}$$

$$\text{Swami} = \frac{7}{8} \times \frac{3}{7} = \frac{21}{56}$$

	Rao:	Swami:	C
New Ratio =	$\frac{28}{56}$:	$\frac{21}{56}$:	$\frac{1}{8}$

$$\frac{28 : 21 : 7}{56}$$

$$4 : 3 : 1$$

Sacrificing Ratio = Old Ratio - New Ratio

$$\text{Rao} = \frac{5}{3} - \frac{4}{8} = \frac{24 - 20}{40} = \frac{4}{40}$$

$$\text{Swami} = \frac{2}{5} - \frac{3}{8} = \frac{16 - 15}{40} = \frac{1}{40}$$

Sacrifice Ratio= Rao: Swami

$$= \frac{4}{40} : \frac{1}{40}$$

$$= 4 : 1$$

***** END *****