

Q11. Rakesh and Suresh are sharing profits in the ratio of 4:3. Zaheer joins and the new ratio among Rakesh, Suresh and Zaheer is 7:4:3. Find out the sacrificing ratio.

Solution –

Old Ratio = 4:3

New Ratio = 7:4:3

Sacrificing Ratio = Old Ratio – New Ratio

Rakesh's = $\frac{4}{7} - \frac{7}{14} = \frac{1}{14}$

Suresh's = $\frac{3}{7} - \frac{4}{14} = \frac{2}{14}$

Sacrificing sharing Ratio

Rakesh = $\frac{1}{14}$

Suresh = $\frac{2}{14}$

Q12. Karim and Rehman are partners sharing profits in the ratio of 3:2. Naval is admitted as a partner. New profit-sharing ratio among Karim, Rehman and Naval is 4:3:2. Find the sacrificing ratio.

Solution – Old Ratio - 3:2

New Ratio - 4:3:2

Sacrificing Share = Old Ratio – New Ratio

Karim's = $\frac{3}{5} - \frac{4}{9} = \frac{7}{45}$

Rehman's = $\frac{2}{5} - \frac{3}{9} = \frac{3}{45}$

Sacrificing sharing ratio

Karim = $\frac{7}{45}$

Rehman = $\frac{3}{45}$

7:3

Q 13. A, B and C are partners sharing profits in the ratio of 4:3:2. D is admitted for $\frac{1}{3}$ rd share in future profits. What is the sacrificing ratio?

Solution – Old Ratio = 4:3:2

D is admitted for $\frac{1}{3}$ rd share of profit

Let the combined share of profit of A, B, C and D be - 1

Combined share of A, B and C after D's admission = $1 - \text{D's share}$
 $= 1 - \frac{1}{3} = \frac{2}{3}$

New Ratio = Old Ratio x Combined share of A, B and C

$$\text{A's} = \frac{4}{9} \times \frac{2}{3} = \frac{8}{27}$$

$$\text{B's} = \frac{3}{9} \times \frac{2}{3} = \frac{6}{27}$$

$$\text{C's} = \frac{2}{9} \times \frac{2}{3} = \frac{4}{27}$$

Sacrificing Ratio = Old Ratio – New Ratio

$$\text{A's} - \frac{4}{9} - \frac{8}{27} = \frac{4}{27}$$

$$\text{B's} - \frac{3}{9} - \frac{6}{27} = \frac{3}{27}$$

$$\text{C's} - \frac{2}{9} - \frac{4}{27} = \frac{2}{27}$$

Sacrificing sharing ratio

$$\text{A} = \frac{4}{27} = 4$$

$$\text{B} = \frac{3}{27} = 3$$

$$\text{C} = \frac{2}{27} = 2$$

Q14. Gautam and Yashica are partners sharing profits and losses in the ratio of 3:2. They admit Asma into partnership. Gautam gives $\frac{1}{3}$ rd of his share while Yashica gives $\frac{1}{10}$ th from his share to Asma. Calculate new profit-sharing ratio and sacrificing ratio.

Solution – Old Ratio of Gautam and Yashica is 3:2

Gautam's sacrifice - $\frac{1}{3} \times \frac{3}{5} = \frac{3}{15}$ Yashica's sacrifice = $\frac{1}{10}$

Sacrificing Ratio - $\frac{3}{15} : \frac{1}{10}$ or 2:1

New ratio = Old ratio – Share Sacrificed

$$\text{Gautam's new share} - \frac{3}{5} - \frac{3}{15} = \frac{6}{15}$$

$$\text{Yashica's new share} - \frac{2}{5} - \frac{1}{10} = \frac{3}{10}$$

$$\text{Asma's share} - \frac{3}{15} + \frac{1}{10} = \frac{9}{30}$$

$$\text{New Ratio} - \frac{6}{15} : \frac{3}{10} : \frac{9}{30} = 4:3:3$$

Q15. A, B and C are partners sharing profits in the ratio of 2:2:1. D is admitted as a new partner for $\frac{1}{6}$ th share. C will retain his original share. Calculate the new profit-sharing ratio and sacrificing ratio.

Solution – Calculation of New Profit Sharing Ratio:-

Old Ratio of A, B and C is 2:2:1

D is admitted for $\frac{1}{6}$ th share while. C will retain his $\frac{1}{5}$ original share

Combine share of A,B,C=1

Remaining share of A and B= $1 - \frac{1}{6} - \frac{1}{5} = \frac{19}{30}$

Remaining share will be shared by A and B in 2:2 (old)

A's - $\frac{19}{30} \times \frac{2}{4} = \frac{38}{120}$

B's - $\frac{19}{30} \times \frac{2}{4} = \frac{38}{120}$

C's - $\frac{1}{5} \times \frac{24}{24} = \frac{24}{120}$

D's - $\frac{1}{6} \times \frac{20}{20} = \frac{20}{120}$

A = 38 or 19

B = 38 or 19

C = 24 or 12

D = 20 or 10

Calculation of Sacrificing Ratio:-

Sacrificing Ratio = Old ratio – new ratio

A's = $\frac{2}{5} - \frac{19}{60} = \frac{24}{60} - \frac{19}{60} = \frac{5}{60}$

B's = $\frac{2}{5} - \frac{19}{60} = \frac{24}{60} - \frac{19}{60} = \frac{5}{60}$

A: B = 5:5 = 1:1

Q16. A, B, C and D are in partnership sharing profits and losses in the ratio of 36:24:20:20 respectively. E joins the partnership for 20% share and A, B, C and D in future would share profit among them as 3/10:4/10:2/10:1/10. Calculated new profit-sharing ratio after E's admission

Solution – Old ratio = 36: 24: 20: 20

E is admitted for 20/100 share means $\frac{1}{5}$ share

Let combined share of profit of all partners = 1

Remaining share = $1 - \frac{1}{5} = \frac{4}{5}$

Remaining share shared with A, B, C, D

A = $\frac{4}{5} \times \frac{3}{10} = \frac{12}{50}$

B = $\frac{4}{5} \times \frac{4}{10} = \frac{16}{50}$

C = $\frac{4}{5} \times \frac{2}{10} = \frac{8}{50}$

D = $\frac{4}{5} \times \frac{1}{10} = \frac{4}{50}$

E = $\frac{1}{5} \times \frac{10}{10} = \frac{10}{50}$

12:16:8:4:10

New profit sharing ratio

A: B: C: D: E – 6:8:4:2:5

Q17. Amit and Vidhya are partner sharing profits in the ratio of 3:2. They admit Chintan into partnership who acquires $\frac{1}{5}$ th of his share from Amit and $\frac{4}{25}$ th share from Vidya. Calculate new profit-sharing Ratio and Sacrificing ratio.

Solution – Calculation of New Profit Sharing Ratio:-

Amit: Vidya = 3:2 (Old Ratio)

Assume combine share = 1

Chintan acquires $\frac{1}{5}$ th of his share from Amit and,

Remaining $\frac{4}{5}$ th ($1 - \frac{1}{5}$) of his share from Vidya

If $\frac{4}{5}$ th share of Chintan = $\frac{4}{25}$

Amit's sacrifice = $\frac{1}{5} \times \frac{1}{5} = \frac{1}{25}$

Vidya's sacrifice = $\frac{4}{25}$

Chintan's share = $\frac{4}{25} + \frac{1}{25} = \frac{5}{25}$

New share = old share - sacrificing share

Amit's new share = $\frac{3}{5} - \frac{1}{25} = \frac{14}{25}$

Vidya's new share = $\frac{2}{5} - \frac{4}{25} = \frac{6}{25}$

Chintan's new share = $\frac{5}{25}$

Amit: Vidya: R = 14:6:5

Sacrificing Ratio = 1:4

ADMISSION OF A PARTNER AND TREATMENT OF GOODWILL

Q18. Gold and silver are partners sharing profits and losses in the ratio of 2:5. They admit copper on the condition that he will bring 14,000 as his share of goodwill to be distributed between Gold and Silver. Copper's share in the future profit or losses will be $\frac{1}{4}$ th. What will be the new profit-sharing ratio and what amount of goodwill brought in by Copper will be received by Gold and Silver?

Solution – Old Ratio = 2:5

Copper is admitted for $\frac{1}{4}$ share

Let the combined share of gold, silver and Copper be = 1

Combined share gold, silver and Copper admission = 1 – Copper's share
= $1 - \frac{1}{4} = \frac{3}{4}$

New Ratio = Old Ratio – Combined share of gold & silver

gold's = $\frac{2}{7} \times \frac{3}{4} = \frac{6}{28}$

silver's = $\frac{5}{7} \times \frac{3}{4} = \frac{15}{28}$

New profit sharing ratio:-

gold = $\frac{6}{28} = \frac{6}{28} = 6$

silver = $\frac{15}{28} = \frac{15}{28} = 15$

Copper = $\frac{1}{4} = \frac{7}{28} = 7$

Distribution of Copper's share of Goodwill or gold & silver will be covered

Copper's share of Goodwill = 14,000

gold will get = $14,000 \times \frac{2}{7} = 4,000$

silver will get = $14,000 \times \frac{5}{7} = 10,000$

Q19. Vimal and Nirmal are partners in a firm sharing profits and losses in the ratio of 3:2. A new partner Kailash is admitted. Vimal gives $\frac{1}{5}$ th of his share and Nirmal gives $\frac{2}{5}$ th of his share in favour of Kailash. For the purpose of kailash's admission, goodwill of the firm is valued at 75,000 and kailash bring his share of goodwill in cash which is retained in the business. Journalise the above transactions.

Solution – Old Ratio of Vimal & Nirmal is 3:2

Share of Profits Kailash will get from Vimal $\frac{1}{5}$ th

$$= \frac{3}{5} \times \frac{1}{5} = \frac{3}{25}$$

Share of Profits Kailash will get from Nirmal $\frac{2}{5}$ th of his share $\frac{2}{5} = \frac{2}{5} \times \frac{2}{5} = \frac{4}{25}$

Remaining of

$$\text{Vimal} = \frac{3}{5} - \frac{3}{25} = \frac{12}{25}$$

$$\text{Nirmal} = \frac{2}{5} - \frac{4}{25} = \frac{6}{25}$$

$$\text{Share of Kailash} = \frac{3}{25} + \frac{4}{25} = \frac{7}{25}$$

New Profit sharing ratio of Vimal, Nirmal and Kailash = 12/25: 6/25: 7/25

Kailash bring his share of goodwill in cash = 75,000 x $\frac{7}{25}$ = 21,000

Vimal and Nirmal will be compensated in sacrificing = 3:4

$$\text{Vimal} = 21,000 \times \frac{3}{7} = 9,000$$

$$\text{Nirmal} = 21,000 \times \frac{4}{7} = 12,000$$

Journal Entry

Date	Particulars	L.F.	DR	CR
	Bank A/cDr		21,000	
	To Premium for Goodwill A/c			21,000
	(Being Goodwill brought in cash)			

	Premium for Goodwill A/cDr	21,000	
	To Vimal's Capital A/c			21,000
	To Nirmal Capital A/c			
	(Being partners compensated in sacrificing ratio 3:4)			

Q20. Pass Journal entries to record the following arrangements in the books of the firm:

- B & C are partners sharing profits in the ratio of 3:2. D is admitted paying a premium (goodwill) of 2,000 for $\frac{1}{4}$ th share of the profits, shares of B and C remain as before.
- B and C are partners sharing profits in the ratio of 3:2. D is admitted paying a premium of 2,100 for $\frac{1}{4}$ th share of profits which he acquires $\frac{1}{6}$ th from B and $\frac{1}{12}$ th from C.

Solution – (a)

Journal Entry

Date	Particulars	L.F.	DR	CR
	Cash A/cDr	2,000	
	To Premium for Goodwill A/c			2,000
	(Being D Brought Premium for Goodwill)			
	Premium for Goodwill A/cDr	2,000	
	To B's Capital A/c			1,200
	To C's Capital A/c			800
	(Being Premium for Goodwill distributed between B & C in Sacrificing ratio 3:2)			

(b) Journal Entry

Date	Particulars	L.F	DR	CR
	Cash A/cDr To Premium for Goodwill A/c (Being D Brought his share of Goodwill in cash)		2,100	2,100
	Premium for Goodwill A/cDr To B's Capital A/c To C's Capital A/c (Being Premium for Goodwill brought distributed between B & C in Sacrificing ratio 2:1)		2,100	1,400 700

Working Note (a):-

Distribution of premium for Goodwill:-

$$B = 2,000 \times \frac{3}{5} = 1,200$$

$$A = 2,000 \times \frac{2}{5} = 800$$

Working Note (b):-

Sacrificing ratio:-

$$B - \frac{1}{6} = 2$$

$$C - \frac{1}{12} = 1$$

Distribution of Premium for Goodwill:-

$$B = 2,100 \times \frac{2}{3} = 1,400$$

$$C = 2,100 \times \frac{1}{3} = 700$$