6.1: Partnership

What is partnership?

Start business individually → Sole Proprietorship

Start business with your friend or any other person → Partnership

Persons investing the money are called partners.

Eg

	You	Your friend
Investment	₹ 20,000	₹ 30,000.

After an year ₹ 5000 profit.

Profit to be shared in the ratio: 20000 : 30000

= 2 : 3

Profit is shared based on capital / investment.

Eg

	You	Your friend
Investment	₹ 50,000 (beginning)	₹ 30,000 (After 6 months)

(compound partnership)

Profit after an year = ₹ 6800

12 months 6 months.

Ratio of profit sharing $\Rightarrow$ $50000 \times 12 : 30000 \times 6$

$\Rightarrow$ 10 : 3

$6800 \times \frac{10}{13}$ $6800 \times \frac{3}{13}$

Simple Partnership

When time period is same

Profit ratio = Investments Ratio

$= I_1 : I_2$

Compound Partnership

Investment of different amounts for different time periods

Profit Ratio = $I_1T_1 : I_2T_2 : I_3 : T_3 \ldots$

Ex

If all components are given in ratio

Investment = 3 : 5

Time Period = 4 : 7

Profit Ratio = $I_1T_1 : I_2T_2$

$= 3 \times 4 : 5 \times 7$

$= 12 : 35$

Profit Ratio = Investment * Time

Time = $\frac{\text{Profit}}{\text{Investment}}$ (or) Investment = $\frac{\text{Profit}}{\text{Time}}$

6.2 : Partnership Problems

Points to remember.

1) No. of partners

2) When they shared the profit

after 1 years → 12 months

2 years → 24 months

3 years → 36 months

3) Any changes in their capital / investment

↳ Add Capital

↳ Withdraw Capital

Q.1) Balu and Somu started the Bar. Balu invests ₹ 35,000 for 8 months and Somu invests ₹ 42,000 for 10 months. Out of a profit of ₹ 31,570. Balu share is

	Balu	Somu
Investments	35,000	42,000
Time	8	10
Profit		31,570

Profit Ratio $= 35000 \times 8 : 42000 \times 10$

$= 2 : 3$

Balu's Share $= 31570 \times \frac{2}{5}$

$= ₹\ 12,628/-$

2nd way

		Ratio
Investments	35000 : 42000	= 5 : 6
Time	8 : 10	= 4 : 5

Profit Ratio = 5×4 : 6×5
= 2 : 3

Balu's share = 31570 × 2/5
= ₹ 12,628/-

Q.2) Aman started a business investing ₹ 70,000. Rakhi joined him after six months with an amount of ₹ 1,05,000 and Sagar joined them with ₹ 1.4 lakhs after another six months. The amount of profit earned should be distributed in what ratio among Aman, Rakhi and Sagar respectively, after three years if Aman started the business?

	Aman	Rakhi	Sagar
Investments (₹)	70,000	1,05,000	1,40,000
Time (months)	36	30	24
Profit Ratio	70000×36 :	105000×30 :	1400000×24
	12 :	15 :	16

Q.3) Ravi starts a business with ₹45,000. After a certain period of time he is joined by Mohan who invests ₹30,000. At the end of the year they divide the profit in the ratio 9:4. After how many months did Mohan join Ravi?

	Ravi		Mohan
Investments (₹)	45000		30000
Time (months)	12		x
Profit Ratio	9	:	4
Profit Ratio	45000×12	:	30000 : x

$$\therefore \frac{9}{4} = \frac{45000 \times 12}{30000 \times x}$$

$$\therefore x = 8 \text{ months.}$$

Joined period = 12 − 8

= 4 months.

After 4 months, Mohan joined Ravi

2nd way

	Ravi		Mohan	
Investments	45,000		30,000	= 3:2
Time	12		x	
Profit Ratio	9	:	4	

$$\text{Time Ratio} = \frac{\text{Profit Ratio}}{\text{Investment Ratio}} = \frac{9}{3} : \frac{4}{2}$$

$3 \rightarrow 12$

$2 \rightarrow \frac{12}{3} \times 2 = 8$ months

$\therefore$ Joined after $(12 - 8) = 4$ months.

Q.4) P, Q and R invests in a business if the ratio of their time period are 3:4:5 and their profits are in the ratio 5:6:8. find the ratio in which the investment are made by P, Q and R?

$$\text{Investment Ratio} = \frac{\text{Profit Ratio}}{\text{Time Ratio}}$$

Time Ratio = 3:4:5

Profit Ratio = 5:6:8

$$\therefore \text{Investment Ratio} = \frac{5}{3} : \frac{6}{4} : \frac{8}{5}$$

$$= \frac{5}{3} : \frac{3}{2} : \frac{8}{5}$$

$$\text{LCM}(3, 2, 5) = 30$$

$$= 50 : 45 : 48$$

Q.5) A and B invests in a business in the ratio 3:2. If 5% of the total profit goes to charity and A's share is ₹ 855, the total profit is

Let total profit be 100%

less 5% → charity

95%

A : B → Profit Ratio

3 : 2

$3/5 \times 95 = 57\%$

$\therefore 57\% \rightarrow 855$

$100\% = \frac{855}{57} \times 100 = ₹ 1500/-$

Q.6) A and B entered in to a partnership, investing ₹ 16,000 and ₹ 12,000 respectively. After 3 months, 'A' withdrew ₹ 5,000, while 'B' invested ₹ 5,000 more. After 3 months more, C joins the business with a capital of ₹ 21,000. After a year, they obtained a profit of ₹ 26,400. By what amount does the profit of B exceed the share of C?

Capital of A = ₹ 16,000 × 3 + ₹ 11,000 × 9

= 3000[16+33]

= 3000 × 49.

Capital of B = ₹ 12,000 × 3 + ₹ 17,000 × 9

= 3000 [12+51]

= 3000 × 63

Capital of C = ₹ 21,000 × 6

Profit Ratio = 49 × 3000 : 63 × 3000 : 6 × 21000

= 7 : 9 : 6

Profit = ₹ 26,400.

7+9+6 = 22

22 → 26400

9−6 = 3 → $\frac{26400}{22} \times 3$

= ₹ 3,600/-