

Partnership (LOD 02)

1. A, B, C entered into a partnership and their capitals are in the proportion of $1/3 : 1/4 : 1/5$. A withdraws half his capital at the end of 4 months. Out of a total annual profit of Rs. 847 A's share is ?

a) Rs. 252 b) Rs. 280

c) Rs. 315 d) Rs. 412

2. A, B and C entered into partnership. A invests some money at the beginning. B invests double the amount after 6 months and C invests thrice the amount after 8 months. If the annual profit be Rs. 18,000, C's share is ?

a) Rs. 7500 b) Rs. 7200

c) Rs. 6000 d) Rs. 5750

3. A, B and C invest Rs. 2,000, Rs. 3,000 and Rs. 4,000 in a business. After one year A removed his money but B and C continued for one more year. If the net profit after 2 years be Rs. 3,200 then A's share in the profit is ?

a) Rs. 1000 b) Rs. 600

c) Rs. 800 d) Rs. 400

4. A and B enter into partnership investing Rs. 12,000 and Rs. 16,000 respectively. After 8 months C joins them with a capital of Rs. 15,000. The share of C in a profit of Rs. 45,600 after 2 years will be ?

a) Rs. 21,200 b) Rs. 19,200

c) Rs. 14,400 d) Rs. 12,000

5. Monoj got Rs. 6,000 as his share out of a total profit of Rs. 9,000 which he and Ramesh earned at the end of one year. If Monoj invested Rs. 20,000 for 6 months. Whereas Ramesh invested his amount for the whole year, what was the amount invested by Ramesh ?

a) Rs. 30,000 b) Rs. 40,000

c) Rs. 10,000 d) Rs. 5,000

6. A, B and C subscribed Rs. 47,000 for a business. A subscribes Rs. 7,000 more than B and B Rs. 5,000 more than C. Out of a total profit of Rs. 9,400, B receives ?

a) Rs. 4,400 b) Rs. 3,000

c) Rs. 2,000 d) Rs. 17,379.00

7. If $6(A's\ capital) = 8(B's\ capital) = 10(C's\ capital)$ then the ratio of their capitals is ?

a) 3 : 4 : 5 b) 12 : 15 : 20

c) 20 : 15 : 12 d) 6 : 8 : 10

8. A, B and C enter into a partnership with shares in the ratio $7/2 : 4/3 : 6/5$. After 4 months, A increases his share by 50%. If the total profit at the end of one year be Rs. 21,600, then B's share in the profit is ?

a) Rs. 2,100 b) Rs. 2,400

c) Rs. 3,600 d) Rs. 4,000

9. Four persons decided to start a restaurant by sharing equal amount of the total investment. After some calculations they found that if they get two more equal investors, each of the four will have to pay Rs. 12,000 less. What was the total investment ?

a) Rs. 24,000 b) Rs. 72,000

c) Rs. 1,44,000 d) Rs. 2,88,000

10. A started a business by investing Rs. 8,000. 3 months later B joined him with Rs. 5,000. If at the end of a year total profit earned was Rs. 2,350. How much is the share of A more than the share of B ?

a) Rs. 600 b) Rs. 800

c) Rs. 400 d) Rs. 850

11. Four milkmen rented a pasture. A grazed 18 cows for 4 months, B, 25 cows for 5 months and D, 21 cows for 3 months. If A's share of rent is Rs. 360, the total rent of the field is ?

a) Rs. 1,500 b) Rs. 1,600

c) Rs. 1,625 d) Rs. 1,650

12. A, B and C entered into a partnership by making investment in the ratio 3 : 5 : 7. After a year C invests another Rs. 33,760 while A withdraws Rs. 45,600. The ratio of investments then changes to 14 : 29 : 167. How much did A invest initially ?

a) Rs. 233,364.71 b) Rs. 9,600

c) Rs. 1,41,600 d) Rs. 233,374.72

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13. Srikant and Vividh started a business investing amounts of ₹ 185000 and ₹ 225000, respectively, If Vividh's share in the profit earned by them is ₹ 9000, what is the total profit earned by them together ?

- a) ₹ 17400 b) ₹ 16400
c) ₹ 16800 d) ₹ 17800

14. Ajay started a business investing ₹ 25000. After 3 months, Vijay joined him with a capital of ₹ 30000. At the end of the year, they made a profit of ₹ 38000. What will be the Ajay's share in the profit ?

- a) ₹ 10000 b) ₹ 18000
c) ₹ 15000 d) ₹ 20000

15. A and B invest in the ratio of 3 : 5, respectively. After 6 months, C enters the business with the investment of the capital equal to that of B. What will be the ratio of the profits of A, B and C at the end of year ?

- a) 6 : 10 : 5 b) 3 : 5 : 5
c) 3 : 5 : 2 d) 6 : 2 : 3

16. P, Q and R are three partners in a business. If P's capital is equal to twice the capital of Q and Q's capital is three times the capital of R, find the ratio of the capital of P, Q and R.

- a) 6 : 3 : 1 b) 1 : 3 : 6
c) 2 : 3 : 6 d) 3 : 6 : 1

17. Ramesh and Priya started a business initially with ₹ 5100 and ₹ 6600, respectively. Investments done by both the persons are for different time periods. If the total profit is ₹ 5460, what is the profit of Ramesh ?

- a) ₹ 1530 b) ₹ 1600
c) ₹ 1400 d) Data inadequate

18. Four milkmen rented a pasture. A grazed 18 cows for 4 months, B grazed 25 cows for 2 months, C grazed 28 cows for 5 months and D grazed 21 cows for 3 months. If A's share of rent is ₹ 720, what will be the total rent of the pasture ?

- a) ₹ 1650 b) ₹ 3250
c) ₹ 3500 d) ₹ 3000

19. A, B and C invested their capitals in the ratio of 5 : 6 : 8. At the end of the business, they received the profits in the ratio of 5 : 3 : 1. Find the ratio of time for which they contributed their capitals. `

- a) 12 : 9 : 7 b) 25 : 18 : 8
c) 5 : 6 : 8 d) 8 : 4 : 1

20. Sonu invested 10% more than the investment of Mona and Mona invested 10% less than the investment of Raghu. If the total investment of all the three persons is ₹ 5780, find the investment of Raghu.

- a) ₹ 2010 b) ₹ 2000
c) ₹ 2100 d) ₹ 2210

21. A, B and C entered into partnership in a business. A got $\frac{3}{5}$ of the profit. B and C distributed the remaining profit equally. If C got ₹ 400 less than A, the total profit was

- a) ₹ 1600 b) ₹ 1200
c) ₹ 1000 d) ₹ 800

22. A began a business with ₹ 2250 and was joined afterwards by B with ₹ 2700. If the profits at the end of the year were divided in the ratio of 2 : 1, after how much time B joined the business ?

- a) 5 months b) 6 months
c) 3 months d) 7 months

23. A, B and C invested capitals in the ratio of 4 : 6 : 9. At the end of the business term, they received the profit in the ratio of 2 : 3 : 5. Find the ratio of their time for which they contributed their capitals.

- a) 1 : 1 : 9 b) 2 : 2 : 9
c) 10 : 10 : 9 d) 9 : 9 : 10

24. Aarti, Vinita and Kamla became partners in a business by investing money in the ratio of 5 : 7 : 6. Next year, they increased their investments by 26%, 20% and 15%, respectively. In what ratio should profit earned during 2nd year be distributed ?

- a) 21 : 28 : 23 b) 23 : 28 : 21
c) 28 : 23 : 21 d) 35 : 41 : 7

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Partnership

(Moderate Answer)

1. Correct Option: B

Ratio of capital in the beginning = $1/3 : 1/4 : 1/5 = 20 : 15 : 12$.

Ratio of investment for the whole year = $(20 \times 4 + 10 \times 8) : (15 \times 12) : (12 \times 12) = 40 : 45 : 36$

\therefore A's share = Rs. $(847 \times 40)/121 =$ Rs. 280

2. Correct Option: C

Suppose A invested Rs. N.

Then A : B : C = $12N : 6 \times (2N) : 4 \times (3N) = 1 : 1 : 1$

\therefore C's share = Rs. $(18000) \times 1/3 =$ Rs. 6000

3. Correct Option: D

A : B : C = $2000 \times 12 : 3000 \times 24 : 4000 \times 24 = 1 : 3 : 4$

A's share = Rs. $3200 \times (1/8) =$ Rs. 400

4. Correct Option: D

Ratio of shares = $12000 \times 24 : 16000 \times 24 : 15000 \times 16 = 6 : 8 : 5$

\therefore C's share = Rs. $45600 \times (5/19) =$ Rs. 12000

5. Correct Option: D

Let the amount invested by Ramesh = Rs. N

Then, $20000 \times 6 : 12N = 6000 : 3000$

$\Rightarrow 120000/12N = 2/1$

$\therefore N = 5000$

6. Correct Option: B

Suppose C invests Rs. N

Then B's investment = Rs. $(N + 5000)$

and A's investment = Rs. $(N + 12000)$

$\therefore N + (N + 5000) + (N + 12000) = 47000$

$\Rightarrow N = 10000$

Thus A : B : C = $22000 : 15000 : 10000$

$= 22 : 15 : 10$

\therefore B's share = Rs. $(9400 \times 15)/47 =$ Rs. 3000

7. Correct Option: C

Let 6 (A's capital) = 8 (B's capital) = 10 (C's capital) = k

Then A's capital = $k/6$ B's capital = $k/8$

and C's capital = $k/10$

\therefore Ratio of capitals of A, B, and C = $(k/6) : (k/8) : (k/10) = 20 : 15 : 12$.

8. Correct Option: D

Given Ratio = $7/2 : 4/3 : 6/5 = 105 : 40 : 36$

Let them initially invest Rs. 105, Rs. 40 and Rs. 36 respectively.

Ratio investment = $[105 \times 4 + (150\% \text{ of } 105) \times 8] : (40 \times 12) : (36 \times 12)$

$= 1680 : 480 : 432 = 35 : 10 : 9$

\therefore B's share = Rs. $21600 \times (10/54) =$ Rs. 4000

9. Correct Option: C

Let investment of each person be Rs. N

Total investment of 4 people = $4 \times N =$ Rs. 4N

Investment of each person when two more people join them = Rs. $(N - 12000)$

\therefore Total investment of 6 people = $6(N - 12000)$

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$$\therefore 4N = 6(N - 12000)$$

$$\Rightarrow 4N = 6N - 72000$$

$$\Rightarrow 2N = 72000$$

$$\therefore N = 36000$$

$$\text{Hence total investment} = 4 \times 36000 = \text{Rs. } 144000$$

10. Correct Option: D

$$\text{Ratio between the investment of A and B} = (8000 \times 12) : (5000 \times 9)$$

$$= 96000 : 45000 = 32 : 15$$

$$\text{Total profit} = \text{Rs. } 2350$$

$$\therefore \text{A's share} = [32/(32 + 15)] \times 2350 = \text{Rs. } 1600$$

$$\therefore \text{B's share} = 2350 - 1600 = \text{Rs. } 750$$

$$\therefore \text{Required difference} = 1600 - 750 = \text{Rs. } 850$$

11. Correct Option: C

$$\text{Ratio of rent} = (18 \times 4) : (25 \times 2) : (28 \times 5) : (21 \times 3)$$

$$= 72 : 50 : 140 : 63$$

$$\text{Let the total rent} = \text{Rs. } N$$

$$\text{Then A's share} = \text{Rs. } (N \times 72)/325 = \text{Rs. } 72N / 325$$

$$\therefore 72N / 325 = 360$$

$$\therefore N = (325 \times 360)/72 = \text{Rs. } 1625$$

12. Correct Option: A

Let the initial investment of A, B, C be Rs. 3k, Rs. 5k and Rs. 7k respectively.

$$\text{Then, } (3k - 45600) : 5k : (7k + 337600) = 14 : 59 : 167$$

$$\Rightarrow (3k - 45600) / 5k = 14 / 29$$

$$\Rightarrow k = 77788.24$$

$$\therefore \text{A investment initially Rs. } (77788.24 \times 3) = \text{Rs. } 233364.71$$

13. Correct Option: B

As we know,

Ratio of profits = Ratio of investments

$$\therefore \text{Srikant's share} : \text{Vividh's share} = 185000 : 225000 = 37 : 45$$

$$\text{Let Srikant's share} = 37N$$

$$\text{Vividh share} = 45N$$

According to the question,

$$45N = 9000$$

$$\therefore N = 9000/45 = 200$$

$$\therefore \text{Total profit} = 37N + 45N = 82N$$

$$= 82 \times 200 = \text{₹ } 16400$$

14. Correct Option: D

$$\text{Ajay's share} : \text{Vijay's share}$$

$$= 25000 \times 12 : 30000 \times (12 - 3)$$

$$= 25 \times 12 : 30 \times 9 = 10 : 9$$

$$\text{Ajay's share} = 10/(10 + 9) \times 38000$$

$$= 10/19 \times 38000$$

$$= 10 \times 2000 = \text{₹ } 20000$$

15. Correct Option: A

$$\text{Let investment of A} = 3N$$

$$\therefore \text{Investment of B} = 5N$$

$$\text{Investment of C} = 5N$$

As we know,

Ratio of profits = Ratio of investments

$$\therefore \text{A's share} : \text{B's share} : \text{C's share}$$

$$= 3N \times 12 : 5N \times 12 : 5N \times (12 - 6)$$

$$= 3N \times 12 : 5N \times 12 : 5N \times 6$$

$$= 6 : 10 : 5$$

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16. Correct Option: A

Let the capital of R = N

Then, capital of Q = 3N,

and capital of P = 6N

$$\therefore \text{P's capital} : \text{Q's capital} : \text{R's capital} = 6N : 3N : N \\ = 6 : 3 : 1$$

17. Correct Option: D

Time is not given in the question. So, we cannot find the profit of Ramesh. Hence, the data is inadequate

18. Correct Option: B

Ratio of rents of A, B, C and D

$$= (18 \times 4) : (25 \times 2) : (28 \times 5) : (21 \times 3) \\ = 72 : 50 : 140 : 63$$

Let the total rent be N.

$$\text{Then, A's share} = [72N / (72 + 50 + 140 + 63)] = 72N/325$$

According to the question. $72N/325 = 720$

$$\therefore N = (720 \times 325)/72 = 3250$$

$$\therefore \text{Total Rent} = \text{₹} 3250$$

19. Correct Option: D

Here, $p_1 : p_2 : p_3 = 5 : 3 : 1$ and $x_1 : x_2 : x_3 = 5 : 6 : 8$

According to the formula,

$$\text{Required ratio} = p_1/x_1 : p_2/x_2 : p_3/x_3$$

$$= 5/5 : 3/6 : 1/8$$

$$= 1 : 1/2 : 1/8 = 8 : 8/2 : 8/8 = 8 : 4 : 1$$

20. Correct Option: B

Let share of Raghu be 100. Then share of Mona = 90 and share of Sonu = 99

$$\text{Sonu} : \text{Mona} : \text{Raghu} = 99 : 90 : 100$$

$$\therefore \text{Investment of Raghu} = [100/(99 + 90 + 100)] \times 5780$$

$$= (100/289) \times 5780 = \text{₹} 2000$$

21. Correct Option: C

Let the total profit be ₹ N,

Then, A's share in profit = ₹ $3N/5$

$$\text{Remaining profit} = N - 3N/5 = (5N - 3N) / 5 = 2N/5$$

$$\therefore \text{B's share in profit} = ₹ N/5$$

$$\text{C's share in profit} = ₹ N/5$$

According to the question,

$$(3N/5 - N/5) = 400$$

$$2N/5 = 400; N = (400 \times 5)/2 = \text{₹} 1000$$

22. Correct Option: D

Let B remained in the business for N months. Then,

$$A : B = (2250 \times 12) : (2700 \times N)$$

$$\Rightarrow 2 : 1 = (27000 : 2700N) = (10 : N)$$

$$\therefore 10/N = 2/1 \quad [\because \text{Ratio of profit is } 2 : 1]$$

$$\Rightarrow 2N = 10$$

$$\therefore N = 10/2 = 5$$

Clearly, B joined after $(12 - 5) = 7$ months.

23. Correct Option: D

Here, $P_1 : P_2 : P_3 = 2 : 3 : 5$ [profit's ratio]

and $x_1 : x_2 : x_3 = 4 : 6 : 9$ [investment's ratio]

According to the rule,

$$\text{Required ratio} = P_1/x_1 : P_2/x_2 : P_3/x_3$$

$$= 2/4 : 3/6 : 5/9 = 1/2 : 1/2 : 5/9 = 9 : 9 : 10$$

24. Correct Option: A

Let investment of Aarti during first year = 5a

Investment of Vinita during first year = 7a

Investment of kamla during first year = 6a

Then, their investments during second year are

$$\Rightarrow (126/100) \times 5a : (120/100) \times 7a : (115/100) \times 6a$$

$$= 630 : 840 : 690 = 21 : 28 : 23$$

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