
PARTNERSHIP

INTRODUCTION

Two or more than two persons when start and run the new business jointly, the persons start they are called Partners and the deal is done between the partners is known as Partnership.

1. Simple Partnership: In simple partnership, capitals of partners are invested for the same period of time.

2. Compound Partnership: In compound partnership, capitals of partners are invested for the different period of time.

Basic Formulas

(i) If two partners A and B are investing their money to run a business then (Simple Partnership)

$$\frac{\text{capital of X}}{\text{Capital of Z}} = \frac{\text{Profit of X}}{\text{Profit of Z}}$$

Capital of X : Capital of Z = Profit of X : Profit of Z

(i) If two partners X and Z are investing their money for different period of time to run a business then

(Compound Partnership)

$$\frac{\text{Capital of X} \times \text{Time of X}}{\text{Capital of Z} \times \text{Time of Z}} = \frac{\text{Profit of X}}{\text{Profit of Z}}$$

Capital of A × Time period of A : Capital of B × Time period of B = Profit of A : Profit of B

If n partners are investing for different period of time then

$$C_1T_1 : C_2T_2 : C_3T_3 : \dots : C_nT_n = P_1 : P_2 : P_3 : \dots : P_n$$

Where C is the capital invested, T is time period of capital invested and P is profit earned.

Working Partners:

A partner who **manages the business** and managing the business for the whole time is known as a working partner. He may gets additional salary or profit for managing the business.

Sleeping Partners:

The one who **simply invests** the money in the business is a **sleeping partner**.

Ratio of Division of Profits

(i) The amount investment of all the partners is for the same time period, the gain or loss amount is distributed among the partners in the ratio of their investments amounts.

(ii) Suppose, A and B invest some money Rs. R1 and R2 respectively for a year in a business, at the end of year profit will be distributed among them (A share of profit): (B share of profit) = A : B.

(iii) When investments are for different time periods, then equivalent capital are calculated a unit of time by taking (Capital x number of unit of time).

(iv) Suppose, A invest Rs. R1 for t1 months and B invest Rs. R2 for t2 months, then (A share of profit): (B share of profit) = A x T1 : B x T2.

Important Questions for Practice

1. Amit, Bitu and Chandu started a business with investment in the ratio 6 : 5 : 7 respectively. After one year Chandu withdrew 50% of his capital and Bitu increased his capital by 40% of his investment. After two years, what should be the ratio of distribution of the profit among Amit, Bitu and Chandu respectively?

- (A) 3 : 3 : 4 (B) 6 : 5 : 4
(C) 7 : 5 : 6 (D) 8 : 8 : 7
(E) None of these

2. Three men A, B and C start a business together. They invest Rs. 32000, Rs. 24000 and Rs. 40000 respectively in the beginning. After 4 months. A took out Rs. 4000 and C took out Rs. 5000. They get a profit of Rs. 10800 at the end of the year. B's share in the profit is

- (A) Rs. 2550 (B) Rs. 2760
(C) Rs. 2880 (D) Rs. 3220
(E) None of these

3. Rohit invested certain amounts in two different schemes 'A' & 'B' Scheme 'A' offers simple interest at 12% p.a. and Scheme 'B' offers compound interest at 10% p.a. Interest accrued on the amount invested in Scheme A in 2 years was Rs. 3,600 and the total amount invested was Rs 35,000. What was the interest accrued on the amount invested in Scheme B?

- (A) Rs. 3,600 (B) Rs. 4,200
(C) Rs. 4,800 (D) Cannot be determined
(E) None of these

4. X, Y and Z were sharing profits in the ratio 4 : 3 : 2. Y retired from the firm and X and Z decide to share profits in the ratio 3 : 2. Calculate the gaining ratio.

- (A) 7 : 8 (B) 5 : 9
(C) 4 : 7 (D) 5 : 8
(E) None of these

5. A, B and C are three partners. They altogether invested Rs 14000 in business. At the end of the year, A got Rs 337.50, B Rs 1125 and C Rs 637.50 as profit. The difference between the investments of A and B was

- (A) Rs 2200 (B) Rs 3200
(C) Rs 4200 (D) Rs 5250
(E) None of these

7. The investment of Ravi is twice as that of Amit and thrice as that of Sumit. Amit invested for thrice the months than Ravi and twice the months than Sumit. Who will earn the highest profit?

- (A) Ravi (B) Amit
(C) Sumit (D) Cannot be determined
(E) None of these

7. A, B and C came into a partnership and agree to share profit in the ratio 4 : 6 : 9 respectively. A and C received a total of Rs 3,900. What is the amount that C and B got together?

- (A) Rs 3,000 (B) Rs 3,600
(C) Rs 4,500 (D) Rs 5,000
(E) None of these

8. Rohit and Rahul entered into a partnership investing Rs.10000 and Rs.8000 rep. After 3 months Rohan joined them with an investment of Rs.12000. What is the share of Rahul in a half yearly profit of Rs.4800?

- (A) Rs.1600 (B) Rs.2000
(C) Rs.2400 (D) Rs.2500
(E) None of these

9. Shivaye and Om enter into a partnership with Rs 50000 and Rs 60000 respectively. Jai joins them after x months contributing Rs 70000 and Om leaves x months before the end of the year. If they share the profit in the ratio of 20 : 18 : 21, then the value of x is

- (A) 3 (B) 4
(C) 6 (D) 9
(E) None of these

10. A man left one-half of the capital for his wife, one-third to his son and the remainder to his daughter. His daughter and wife have the share worth Rs 3, 00,000. Find the share of the son.

- (A) Rs 90,000 (B) Rs 1,25,000
(C) Rs 1,50,000 (D) Rs 3,00,000
(E) None of these

Solutions

1. Answer is option D

Explanation:

Total capital of Amit

$$= 6x \times 24 = 144x$$

Total equivalent capital of Bitu for 1 month

$$= 5x \times 12 + 7x \times 12 = 144x$$

Total equivalent capital of Chandu

$$= 7x \times 12 + 3.5x \times 12 = \text{Rs. } 126x$$

Required ratio = Amit : Bitu : Chandu

$$= 144x : 144x : 126x$$

$$= 8 : 8 : 7$$

2. Answer is option C

Explanation:

Ratio of equivalent capitals

$$= (32000 \times 4 + 28000 \times 8) : 24000 \times 12 : (40000 \times 4 + 35000 \times 8)$$

$$= 352000 : 288000 : 440000$$

$$= 352 : 288 : 440$$

$$= 44 : 36 : 55$$

$$\text{Sum of ratios} = 44 + 36 + 55 = 135$$

B's share = 36

$$\frac{10800}{135} \times 36 = \text{Rs. } 2880$$

3. Answer is option B

Explanation:

Simple interest is always same every year.

$$12\% + 12\% = 24\% \text{ of Scheme A}$$

$$24\% \text{ of Scheme A} = 3600$$

$$100\% \text{ of Scheme A} = \frac{3600}{24} \times 100$$

$$= 15000$$

Investment in Scheme B

$$= 35000 - 15000 = 20000$$

Interest on Scheme B

$$10\% + 10\% + \frac{10 \times 10}{100} = 21\%$$

21% on 20000

$$\text{Interest} = 20000 \times \frac{21}{100}$$

$$= 4200$$

4. Answer is option A

Explanation:

X : Y : Z

4 : 3 : 2

After Y's retirement

X : Y

3 : 2

Gaining Ratio

X : Y

$$\left(\frac{3}{5} - \frac{4}{9}\right) : \left(\frac{2}{5} - \frac{2}{9}\right)$$

$$7 : 8$$

5. Answer is option D**Explanation:**

Ratio of investments of A, B and C

$$= 337.50 : 1125 : 637.50$$

$$= 27 : 90 : 51$$

$$= 9 : 30 : 17$$

Let the investments of A, B and C be $9x$, $30x$ and $17x$ respectively

$$9x + 30x + 17x = 14000$$

$$x = 250$$

So, required difference

$$= 30x - 9x = 21x$$

$$21x = \text{Rs } 5250$$

6. Answer is option B**Explanation:**

	Ravi : Amit : Sumit		
Invest	$6x$	$3x$	$2x$
Time	$2y$	$6y$	$3y$
Profit	$12xy$	$18xy$	$6xy$
Final profit sharing ratio			
Ravi	Amit	Sumit	
2	3	1	

Hence, Amit will earn the highest profit

7. Answer is option C**Explanation:**

$$A : B : C$$

$$4x : 6x : 9x$$

$$A \text{ and } C \text{ received} = 3900$$

$$A + C = 13x$$

$$13x = 3900$$

$$x = 300$$

$$B + C = 15x$$

$$= 15 \times 300$$

$$= 4500$$

8. Answer is option A**Explanation:**

$$\text{Rohit} = 10000 \times 6 = 60000$$

$$\text{Rahul} = 8000 \times 6 = 48000$$

$$\text{Rohan} = 12000 \times 3 = 36000$$

Profit sharing ratio

Rohit	Rahul	Rohan
60000	48000	36000
5	: 4	: 3

$$\text{Rahul's share} = 4800 \times \frac{4}{12} = 1600$$

9. Answer is option A**Explanation:**

Shivaye there for whole time = 12 months

$$\text{Invested} = 50000$$

$$\text{Om's investment} = 60000$$

$$\text{Time} = 12 - x \text{ months}$$

$$\text{Jai's investment} = 70000$$

$$\text{Time} = 12 - x \text{ months}$$

Take any two

$$\frac{\text{Shivaye}}{\text{Om}} = \frac{20}{18}$$

$$\frac{50000 \times 12}{60000 \times (12 - x)} = \frac{20}{18}$$

$$9 = 12 - x$$

$$x = 12 - 9$$

$$x = 3$$

10. Answer is option C**Explanation:**Let his total capital = x

$$\text{His wife's share} = \frac{1}{2}x$$

$$\text{His son's share} = \frac{1}{3}x$$

$$\text{His daughter's share} = x - \left(\frac{1}{2}x + \frac{1}{3}x \right)$$

$$= \frac{1}{6}x$$

$$\text{Wife and daughter's share} = \frac{1}{6}x + \frac{1}{2}x$$

$$= \frac{2}{3}x = 300000$$

$$= x = 450000$$

$$\text{Son's share} = 450000 \times \frac{1}{3}$$

$$= 150000$$