

Partnership

There are two types of 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

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

$$\frac{\text{Capital of A}}{\text{Capital of B}} = \frac{\text{Profit of A}}{\text{Profit of B}}$$

Capital of A : Capital of B = Profit of A : Profit of B

If two partners A and B are investing their money for different period of time to run a business then

(Compound Partnership)

$$\frac{\text{Capital of A} \times \text{Time period of A}}{\text{Capital of B} \times \text{Time period of B}} = \frac{\text{Profit of A}}{\text{Profit of B}}$$

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.

Shortcut Methods

Rule 1:

If two partners are investing their money C_1 and C_2 for equal period of time and their total profit is P then their shares of profit are

$$\frac{C_1 \times P}{C_1 + C_2} \text{ and } \frac{C_2 \times P}{C_1 + C_2}$$

If these partners are investing their money for different period of time which is T_1 and T_2 , then their profits are

$$\frac{C_1 \times T_1 \times P}{C_1 T_1 + C_2 T_2} \text{ and } \frac{C_2 \times T_2 \times P}{C_1 T_1 + C_2 T_2}$$

Rule 2:

If n partners are investing their money C_1, C_2, \dots, C_n for equal period of time and their total profit is P then their shares of profit are

$$\frac{C_1 \times P}{C_1 + C_2 + \dots + C_n}, \frac{C_2 \times P}{C_1 + C_2 + \dots + C_n}, \dots, \dots, \frac{C_n \times P}{C_1 + C_2 + \dots + C_n}$$

If these partners are investing their money for different period of time which is T_1, T_2, \dots, T_n then their profits are

$$\frac{C_1 \times T_1 \times P}{C_1 T_1 + C_2 T_2 + \dots + C_n T_n}, \frac{C_2 \times T_2 \times P}{C_1 T_1 + C_2 T_2 + \dots + C_n T_n}, \dots, \dots, \frac{C_n \times T_n \times P}{C_1 T_1 + C_2 T_2 + \dots + C_n T_n}$$