

BHARAT SCHOOL OF BANKING

Partnership

Q.1) - Raj invested Rs 76000 in a business. After few months Monty joined him and invests Rs 57000. At the end of year both of them share the profits at the ratio of 2:1. After how many months Monty joined Raj ?

Solution - We can simply compute per month investment of both [partnership](#)

Raj invested Rs 76,000 for 12 months and Monty invested Rs 57,000 for x months.

$$\text{Now } 76000 \times 12 / 57000 \times x = 2 : 1$$

$$\Rightarrow 76 \times 12 / 2 = 57x$$

$$\Rightarrow x = 8$$

So Monty invested his money for 8 months and he joined after 4 months.

Q.2) - A and B started a business by investing money in ratio of 5:6. C joined them after few months by sharing an amount equal to B's share. At the end of year 20% profit was earned which was equal equal to Rs 98,000. How much money was invested by C ?

Solution -

= First of all we will calculate the weighted ratios

$$\Rightarrow A = 5 \times 12 = 60$$

$$\Rightarrow B = 6 \times 12 = 72$$

$$\Rightarrow C = 6 \times 6 = 36$$

Total investment at the end of year = $98000 \times 100/20 = \text{Rs } 4,90,000$

$$\Rightarrow \text{Investment by C} = 490000 \times 36 / 168 \times 2 = \text{Rs } 210000$$

Q.3) -A, B and C shared profits in ratio of 5:7:8. They partnered for 14 months, 8 months and 7 months respectively. What was he ratio of their investments ?

Solution - Simply multiply profit sharing ratio with investment ratio to get investment amount ratio.

Let X is the total investment

$$\Rightarrow 14x = 5$$

$$\Rightarrow 8x = 7$$

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$$\Rightarrow 7x = 8$$

$$\Rightarrow \text{Final investment ratio} = 20 : 49 : 64$$

Q.4) - Sita and Geeta started a business by investing Rs. 120000 and Rs.135000 respectively. Find the share of each out of an annual profit of Rs. 35700.

Solution :-

sita

Gita



$$\text{Ratio of their share} = 120000:135000 = 8:9$$

$$\text{sum of the parts of the ratio} = 8+9 = 17$$

$$\text{Sita's share} = 35700 \times \frac{8}{17} = \text{Rs.16800}$$

$$\text{Gita' share} = 35700 \times \frac{9}{17} = \text{Rs.18900}$$

- When investors are there for the different duration of time in the business , then the investments are calculated for a unit of time by having (investment x number of units of time) . Now gain or loss is divided in the ratio of these investments.

Q.5) - Ravi started a business by investing Rs.36000. After 3 months Shayam joined him by investing Rs.36000. Find the share of each in the annual profit of Rs. 37100.

Solution -

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Ravi

Since Shyam joined after 3 months, we need to subtract it from 12

$$\text{Ratio of their share} = 36000 \times 12 : 36000 \times 9 = 4:3$$

$$\text{sum of the parts of the ratio} = 4+3 = 7$$

$$\text{Sita's share} = 37100 \times \frac{4}{7} = \text{Rs.}21200$$

$$\text{Gita's share} = 37100 \times \frac{3}{7} = \text{Rs.}15900$$

Q.6) - Sony , Mony and Tony start a business each investing Rs.20000. After 5 months Sony withdrew Rs.5000, Mony withdrew Rs.4000 and Tony added Rs.6000 more. At the end of the year, a total profit Of Rs. 69900 was recorded. Find the share of each?

Solution -

$$\text{Ratio of the investments of Sony, Mony and Tony} = 20000 \times 5 + 15000 \times 7 : 20000 \times 5 + 16000 \times 7 + 20000 \times 5 + 26000 \times 7$$

Explanation: since Sony invest for 5 months is Rs. 20000 and then withdraws Rs 5000 after 5 months so his investment is now 20000-5000 = 15000 for remaining months that is 12-5 =7. Similar is the case with Mony . In case of Tony why we do not subtract is because he is not withdrawing rather he is investing 6000 extra after 5 months.

$$= 205000:212000:282000 = 205:212:282$$

$$\text{sum parts of the ratio} = 205+212+282 = 699$$

$$\text{Sony's share} = 69000 \times \frac{205}{699} = \text{Rs. } 20500$$

$$\text{Mony's share} = 69900 \times \frac{212}{699} = \text{Rs. } 21200$$

$$\text{Tony's share} = 69900 \times \frac{282}{699} = \text{Rs. } 28200$$

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Q.7) - Sheela started a business with Rs. 21000 and is joined afterwards by Reema with Rs 36000. After how many months did Reema join if the profits at the end of the year are divided equally?

Answer -

Let Reema joins after x months.

Then Reema's investments was for (12-x) months

Since the profits was divided equally

$$21000 \times 12 = 36000 \times (12-x)$$

$$12-x = 21000 \times 12 / 36000$$

$$12-x = 7$$

$$-x = 7-12$$

$$-x = -5$$

$$x = 5$$

so Reema joined after 5 months

Q.8) - X and Y invested in a business. They earned some profit which they divided in the ratio of 2:3. If X invested Rs. 40000. Find the amount invested by Y?

Solution -

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Let Y invests Rs.m

Ratio of their capitals = $40000 \times 12 : m \times 12 = 40000 : m$

And we know that according to the investments, profit ratio is decided

so $2:3 = 40000:m$

$\frac{2}{3} = \frac{40000}{m}$

$m = 40000 \times \frac{3}{2} = \text{Rs } 60000$

Q.9) - A , B , C contract a work for Rs .1100.A and B together are to do $\frac{7}{11}$ of the work . What is C's share ?

Solution -

We know that A and B share = $\frac{7}{11}$

C's share = $1 - \frac{7}{11} = \frac{4}{11}$

C's share = Rs. $1100 \times \frac{4}{11} = \text{Rs. } 400$

Q.10) - Mohinder and Surinder entered into a [partnership](#) investing Rs. 12000 and Rs. 9000 respectively . After 3 months , Sudhir joined them with an investment of Rs.15000. What is the share of Sudhir in a half yearly profit of Rs. 9500?

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Solution -

Mohinder : Surinder : Sudhir = $12000 \times 6 : 9000 \times 6 : 15000 \times 3 = 8:6:5$

Explanation : Now this time we need to calculate the profit half yearly that is why 6 is multiplication in case of Mohuinder and Surinder . In case of Sudhir, Since he comes after 3 months so his number of months is $6-3=3$.

Sum of parts of Ratio = $8+6+5 = 19$

Share of Sudhir = $9500 \times \frac{5}{19} = \text{Rs. } 9500$

Q.11) - In a [partnership](#) , A invests $\frac{1}{6}$ of the capital for $\frac{1}{6}$ of the time , B invests $\frac{1}{3}$ of the capital for $\frac{1}{3}$ of the time and C , the rest of the capital for the whole time. What is the share of B in the profit f Rs. 4600.

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Solution -

Let the total capital is Rs. m and the whole period is y months .

A invests $m/6$ for $y/6$ months

B invests $m/3$ for $y/3$ months

C invests = $m - (m/6 + m/3) = m/2$ for y months

$$A : B : C = \frac{m \times y}{6 \cdot 6} : \frac{m \times y}{3 \cdot 3} : \frac{m \times y}{2}$$

$$= 1/36 : 1/9 : 1/2$$

$$= 36 \times 1/36 : 36 \times 1/9 : 36 \times 1/2$$

LCM of 36, 9 and 2 is 36 , so we multiply each ratio by 36 to make it a proper ratio.

$$= 1 : 4 : 18 \quad \text{B}$$

sum of the parts = $1+4+18 = 23$

B's share = $4600 \times 4/23 = \text{Rs. } 800$

Q.12) - Three partners shared the profit in a business in the ratio 5 : 7 : 8. They had partnered for 14 months, 8 months and 7 months respectively. What was the ratio of their investments?

Solution - Let the first partner invests Rs x for 14 months, second partner invests Rs. y for 8 months, Rs z for 7 months.



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$$14x : 8y : 7z = 5 : 7 : 8$$

$$\frac{14x}{8y} = \frac{5}{7}$$

$$98x = 40y$$

$$y = \frac{98x}{40} = \frac{49x}{20}$$

$$\frac{14x}{7z} = \frac{5}{8}$$

$$112x = 35z$$

$$z = \frac{112x}{35} = \frac{16x}{5}$$

$$x : y : z = x : \frac{49x}{20} : \frac{16x}{5}$$

$$= \cancel{20x} : \cancel{49x} : \cancel{64x}$$

$$= 20 : 49 : 64$$