

**EXERCISE**

**5**

**PARTNERSHIP**

1. Two partners A and B start a business by investing Rs. 50, 000 and Rs. 40, 000 respectively. What will the ratio of their profits at the end of the year?

- (a) 5 : 4                      (b) 3 : 6  
(c) 4 : 5                      (d) 6 : 3

**Answer: a)**

Ratio of profit/loss = Capital × time

$$A : B = 50,000 : 40,000$$

$$5 : 4$$

2. A starts a business with Rs. 25, 000. After 4 months B joins him with Rs. 20, 000. What will be the ration of their profit at the end of the year?

- (a) 4 : 8                      (b) 5 : 10  
(c) 15 : 8                      (d) 9 : 18

**Answer: c)**

$$A : B = 25, 000 \times 12 : 20, 000 \times 8$$

$$= 300000 : 160000$$

$$= 30 : 16$$

$$= 15 : 8$$

3. A starts a business with Rs. 21, 000/- and later B joins him with Rs. 36, 000/- . After how many months did B join if the profit is distributed in equal ratio?

- (a) 5                              (b) 7  
(c) 6                              (d) 9

**Answer: a)**

$$A : B = 21000 \times 12 : 36000 \times x$$

$$\text{Ratio} = 1 : 1 \text{ (as profit is equal)} \quad 21000 \times 12 = 36000 \times x$$

$$X = 7 \text{ months}$$

∴ B joins after 5 months

4. Shrikant and Vividh started a business investing amount of Rs. 1,85,000 and Rs. 2,25,000 respectively. if Vividh's share in the profit earned by them is Rs. 9,000. Then what is the total profit earned by them together?

- (a) Rs. 17,400                      (b) Rs. 16,400  
(c) Rs. 16,800                      (d) Rs. 17,800

**Answer: b)**

Ratio of investment

$$= 185000 : 225000$$

$$= 37 : 45$$

$$\text{Sum of the ratios} = (37 + 45) = 82$$

$$\text{If } 45x = 9000 \text{ then } 82x$$

$$\text{Shyam gets} = \frac{82x \times 9000}{45x} = \text{Rs. } 16400/-$$

5. Rasika and Nikita invested amounts of Rs. 40,000 and Rs. 75, 000 respectively. At the end of five year they got a total dividend of Rs. 46,000. What is Rasika's share in the dividend?

- (a) Rs 16,500                      (b) Rs 15,500  
(c) Rs 15,000                      (d) Rs 16,000

**Answer: d)**

The ratio of Rashika's, Nikita's investment

$$= 40000 : 75000 = 8 : 15$$

Rashika's share

$$= \frac{8}{23} \times 46,000 = 8 \times 2,000 = 16,000$$

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6. A and B enter into a partnership with capitals in the ratio 5:6; and at the end of 8 months, A withdraws. If they receive profits in the ratio of 5:9, find how long B's capital was used?

- (a) 8 months                      (b) 9 months  
(c) 11 months                    (d) 12 months

**Answer: (d)**

$$5x \times 8 : 6x \times y$$

$$\frac{5x \times 8}{6x \times y} = \frac{5}{9}$$

$$\frac{8}{2y} = \frac{1}{3}$$

$$Y = 12 \text{ months}$$

7. A began a business with Rs. 450 and was joined afterwards by B with Rs. 300. After how many months did B join if the profits at the end of the year were divided in the ratio 2:1?

- (a) 2 months                      (b) 3 months  
(c) 4 months                      (d) 5 months

**Answer: b)**

Suppose B joined the business for x months

Then using the formula, we have

$$\frac{450 \times 12}{300 \times x} = \frac{2}{1}$$

$$\text{Or, } x \times 300 = 450 \times 6$$

$$\therefore x = \frac{450 \times 6}{300} = 9 \text{ months}$$

Therefore, B joined after  $(12 - 9) = 3$  months

8. A and B rent a pasture for 10 months. A puts in 100 cows for 8 months. How many cows can B put

in for the remaining 2 months, if he pays as much as A?

- (a) 450 cows                      (b) 550 cows  
(c) 600 cows                      (d) 650 cows

**Answer: c)**

Suppose B put in x cows. The ratio of A's and B's rents

$$\frac{100 \times 8}{x \times 2} = \frac{1}{3/2}$$

$$\text{Then, } \frac{100 \times 8}{x \times 2} = \frac{2}{3}$$

$$\text{Or, } x = \frac{100 \times 8 \times 3}{2 \times 2} = 600 \text{ cows.}$$

9. A and B rent a pasture for 10 months; and A puts in 90 oxen for 7 months. How many oxen can B put in for the remaining 3 months, if he pays half as much as A?

- (a) 105                              (b) 110  
(c) 115                              (d) 120

**Answer: a)**

$$\frac{90 \times 7}{x \times 3} = \frac{2}{1} \Rightarrow x = \frac{90 \times 7}{2 \times 3} = 105$$

10. A, B and C get a video cassette for Rs. 350. If they use it for 6 hours, 10 hours and 12 hours respectively then how much rent did C pay?

- (a) Rs. 275                      (b) Rs. 350  
(c) Rs. 325                      (d) Rs.150

**Answer: d)**

$$\begin{aligned} \text{C pays} &= \frac{12}{6+10+12} \times 350 = \frac{12}{28} \times 350 \\ &= \text{Rs. } 150 \end{aligned}$$