

Aptitude Proportion & Partnership Ratio

1. Rahul & Ravi share pizza ratio 2:3. pizza has 10 slices
Total = 2 + 3 = 5

$$\text{Rahul} = \frac{2}{5} \times 10 = 4 \text{ slice}$$

$$\text{Rahul} = 4 \text{ slice}$$

$$\text{Ravi} = 6 \text{ slice} //$$

$$\text{Ravi} = \frac{3}{5} \times 10 = 6 \text{ slice}$$

2) Divide ₹100 between Anu & Tina ratio 1:4

$$\text{Total} = 1 + 4 = 5$$

$$\text{Anu} = \frac{1}{5} \times 100 = 20$$

$$\text{Anu} = 20$$

$$\text{Tina} = 80 //$$

$$\text{Tina} = \frac{4}{5} \times 100 = 80$$

4. Ritu mixes 2 cups of milk with 3 cups of water.

$$\text{Milk} = 2, \text{ water} = 3 \rightarrow 2 + 3 = 5$$

$$\text{Ratio} = \frac{2}{3} \text{ of both}$$

$$\text{Milk ratio} = \frac{2}{5} //$$

$$3. \text{ Ratio} = \frac{3000}{6000} = \frac{1}{2} = 1:2 //$$

5. Ages = 3:2. Elder 15 years old.

$$3x = 15$$

$$\boxed{x = 5}$$

$$2x = 15 \Rightarrow 2(5) = 15$$

$$\boxed{2x = 10} //$$

$$x$$

$$6. \text{ Amit} = x$$

$$\text{Raj} = 2x$$

$$\text{Amit} = 20$$

$$\rightarrow x + 2x = 60$$

$$3x = 60$$

$$\boxed{x = 20}$$

$$\boxed{2(20) = 40}$$



7. 5 pens cost = 50 ₹
 8 pens cost = ?
 1 pen cost = $\frac{50}{5} = 10 ₹$
 8 pens cost = $8 \times 10 = \boxed{80 ₹}$

8. speed = $\frac{D}{T} = \frac{120}{2} = 60 \text{ km/hr}$
 Distance = $60 \times 5 = \boxed{300 \text{ km}}$

9. Given Sugar to Flour is 1:4.
 Sugar = 1, Flour = 4.
 Flour = 11c.
 total = 4 parts = 1kg.
 weight of 1 part = $\frac{1 \text{ kg}}{4} = 0.25 \text{ kg}$

10. cost of oranges = $60 \div 12 = 5$.
 $150 \div 5 = \boxed{30 \text{ oranges}}$

11. Ratio = $\frac{4}{9} : \frac{5}{9} = 4:5 = 9$.
 son 1 = $\frac{4}{9} \times 6000 = 2666.67$
 son 2 = $\frac{5}{9} \times 6000 = 3333.33$

12. A, B, C = 3:2:1
 $= 3+2+1 = 6$.
 $A = \frac{3}{6} \times 2000 = 1000$
 $B = \frac{2}{6} \times 2000 = 666.67$
 $C = \frac{1}{6} \times 2000 = 333.33$

13. Milk : water = 7:3 , Total = 10L.
 Total = 7+3 = 10
 Milk $\frac{7}{10} \times 10 = 7L$ //

14. Salaries = X:Y:Z = 5:6:7. $Y = 6000$
 6 parts = 60000 as 1 part = 10000
 for 7 parts = 70000 //

15. Speed in ratio = 3:4
 1st covers 18 km. $\rightarrow 3 \rightarrow 18$
 2nd ? $4 \rightarrow$
 As $\frac{3}{4} = \frac{18}{x} \Rightarrow 3x = 72$
 $x = 24$ km.

16. water = 40% of 5 = $\frac{40}{100} \times 5 = 2L$
 water = 2L
 xL of water added to make 50%
 New total = 5+x
 water = 2+x
 $\frac{2+x}{5+x} = \frac{1}{2}$
 $4+2x = 5+x$
 $x = 1$ liter added.

17.

$$A = 5000 \times 6 = 30,000$$

$$B = 3000 \times 6 = 18,000$$

$$\text{Ratio} = A:B = 30,000 : 18,000 = 5:3$$

$$\text{Profit} = 2400 \text{ ₹}$$

$$5+3=8$$

$$A = \frac{5}{8} \times 2400 = 1500 \text{ ₹} //$$

$$B = \frac{3}{8} \times 2400 = 900 \text{ ₹} //$$

18. For 12 months

$$A = 6000 \times 12 = 72,000$$

$$B = 9000 \times 12 = 1,08,000$$

$$C = 3000 \times (12-4) = 8 = 24,000$$

$$\text{Ratio} = 72,000 : 1,08,000 : 24,000 = 6:9:2$$

$$\text{Total} = 6+9+2 = 17$$

$$C's \text{ share} = \frac{2}{17} \times 1,58,824 = 211.76 //$$

19. Take time = 12 months

$$A = 2000 \times 12 = 24,000$$

$$B = 3000 \times (12-3) = 9 = 27,000$$

$$A:B = 24 : 27 = 8:9 //$$

20. A:B:C = 2:3:5

$$= 2+3+5 = 10$$

$$\text{Profit} = 10,000$$

$$B \text{ get} = \frac{3}{10} \times 10,000 = 3,000 //$$



21) $A = 4000 \times 4 = 16,000$
 $B = 5000 \times 8 = 40,000$
 $C = 6000 \times 12 = 72,000$
Ratio = $\frac{16}{8} : \frac{40}{15} : \frac{72}{36}$
 $8 : 15 : 36 //$

22) $A = 10000 \times 12 = 120000$
 $B = 5000 \times (12-4) = 8 \times 40000$
 $C = 10000 (2-8) = 4 \times 40000$
Ratio = $\frac{12}{3} : \frac{4}{1} : \frac{4}{1}$
 $3 : 1 : 1$

23) After 6 months: A withdraws ₹2000, B adds 3000
 $A = 5000 \times 6 + (5000-2000) \times 6 = 3000 \times 6 = 30000 + 18000$
 $B = 7000 \times 6 + (7000+3000) \times 6 = 10000 \times 6 = 60000$
 $42000 + 60000 = 102000$
Ratio = $\frac{30}{42} : \frac{17}{51}$
Ratio = $8 : 17 //$

24) $A = 5000 \times 12 = 60000$
 $B = 7000 \times 8 = 56000$
 $C = 9000 \times 4 = 36000$
Ratio = $\frac{30}{60} : \frac{14}{56} : \frac{18}{36}$
Ratio = $15 : 14 : 9$
Total = $15 + 14 + 9 = 38$

$$\text{Profit} = 6600 \text{ ₹.}$$

$$A = \frac{3300}{6600} \times \frac{15}{\frac{38}{19}} = 2605.26$$

$$B = 6600 \times \frac{14}{38} = 2431.58$$

$$C = 6600 \times \frac{9}{38} = ₹1563.16$$

25)

$$A = 6000 \times 6 = 36000$$

$$B = 8000 \times 4 = 32000$$

$$C = 4000 \times 12 = 48000$$

$$\text{Ratio} = \frac{36}{36}; \frac{32}{32}; \frac{48}{48} = 9:8:12$$

$$\text{Total} = 9 + 8 + 12 = 29.$$

$$\text{Profit} = 10,000.$$

$$A = \frac{9}{29} \times 10000 = 3103.45$$

$$B = \frac{8}{29} \times 10000 = 2758.62$$

$$C = \frac{12}{29} \times 10000 = 4137.93 //$$