

Partnership

- * $P \propto I$ (Profit \propto Investment)
- * $P \propto T$ (Profit \propto Time) $\Rightarrow P \propto IT$

- * If there are two partners,

$$\boxed{\frac{P_A}{P_B} = \frac{I_A}{I_B} \times \frac{T_A}{T_B}}$$

1. A and B started a business investing Rs. 48000 & Rs. 64000 respectively, but B left the business after two months. Find the difference between the share of profits of A and B, if the total profit at the end of year is Rs. 12100.

$$\begin{array}{c} \text{OP} : \text{EXPS} \\ \text{A} \\ \text{I} \quad 48 \\ \text{T} \quad 12 \end{array}$$

$$\begin{array}{c} \text{OP} : \text{EXPS} \\ \text{B} \\ \text{I} \quad 64 \\ \text{T} \quad 2 \end{array}$$

$$48 \times \frac{1}{2} : 64 \times \frac{2}{1}$$

$$48 \times \frac{1}{2} : 64 \times \frac{2}{1}$$

$$\boxed{2:3}$$

$$\text{OP} : \text{EXPS} = 12100$$

$$12 \times 48 : 64$$

$$12 \times 48 : 1 \times 64$$

$$3 \quad 32$$

$$3 \times 24 : 16$$

$$3 \times 3 : 2$$

$$9 : 2$$

$$\frac{9}{11} \times 12100 = \frac{12100}{11} = 1100$$

$$\begin{array}{r} \text{A} \\ \text{B} \\ \text{C} \end{array}$$

$$12 \times 3 : 32$$

$$24 \times 3 : 16$$

$$3 \times 3 : 2$$

$$\frac{A}{B} = \frac{9}{2} \Rightarrow 9-2 = 7P = 1100 \Rightarrow P = 1100$$

$$11P = 12100$$

$$\boxed{P = 1100}$$

(Q) Formula $\text{OP} : \text{EXPS} = P : Q$

$$\frac{P_A}{P_B} = \frac{I_A}{I_B} \times \frac{T_A}{T_B}$$

$$\text{OP} : \text{EXPS} = P : Q$$

$$\boxed{P : Q = 2 : 1}$$

$$\text{OP} : \text{EXPS} = P : Q$$

$$\boxed{P : Q = 3 : 1}$$

1. A started a business with a capital of Rs. 85000 and B joins in with a capital of Rs. 42500 after some months. For how much period B is there in the business, if the profit at the end of the year is shared in the ratio 3:1

$$\frac{P_1}{P_2} = \frac{850}{425} \times \frac{12}{(12-x)}$$

$$\frac{P_1}{P_2} = \frac{850}{425} \times \frac{12}{12-x}$$

$$\frac{3}{1} = \frac{850}{425} \times \frac{12}{12-x}$$

$$\frac{3}{1} = \frac{850}{425} \times \frac{12}{12-x}$$

$$\frac{3}{1} = \frac{24}{12-x}$$

$$\frac{3}{1} = \frac{24}{12-x}$$

$$12 \times 3 - 3x = 24$$

$$36 - 3x = 24$$

$$36 - 24 = 3x$$

$$12 = 3x$$

2

$$\begin{array}{l}
 \text{A and B started a business with investment ratio } 25:15 \\
 \text{Time ratio } 36:24 \\
 \text{Total profit } 30000 \\
 \text{Share of A} = \frac{25}{25+15} \times 30000 = 15000 \\
 \text{Share of B} = \frac{15}{25+15} \times 30000 = 15000 \\
 \text{Ratio of their profit } 15:15 = 1:1
 \end{array}$$

$$\begin{array}{l}
 \text{A} \quad \text{B} \\
 \text{I.} \quad 25000 \quad 15000 \\
 \text{T.} \quad 36. \quad 24. \\
 \text{Ratio of profit} = \frac{25}{36} : \frac{15}{24} = \frac{5}{6} : \frac{5}{8} = 1:1
 \end{array}$$

$$25 \times 36 : 15 \times 24 = 5 : 3$$

$$\begin{array}{l}
 \text{A} \quad \text{B} \\
 \text{I.} \quad 25000 \quad 15000 \\
 \text{T.} \quad 36. \quad 30. \\
 \text{Ratio of profit} = \frac{25}{36} : \frac{15}{30} = \frac{5}{6} : \frac{1}{2} = 5:3
 \end{array}$$

$$\begin{array}{l}
 \text{A} \quad \text{B} \\
 \text{I.} \quad 25000 \quad 15000 \\
 \text{T.} \quad 36. \quad 30. \\
 \text{Ratio of profit} = \frac{25}{36} : \frac{15}{30} = \frac{5}{6} : \frac{1}{2} = 5:3
 \end{array}$$

$$\begin{array}{l}
 5x + 3x = 30000 \\
 8x = 30000 \\
 x = 3750
 \end{array}$$

$$B = 3x = 3 \times 3750 = 11250$$

7. A and B started a business with investment in the ratio 5:3. After 6 months from the start of business C joined with the investment ratio between B and C as 2:3. If annual profit earned by them is Rs 12000. Find the difference between shares of B and C in the profit.

$$5 \times 12 : 3 \times 12 \quad 2 \times 12 : 3 \times 6$$

5:3

$$\boxed{14 \div 3}$$

$$A:B:C \Rightarrow 20:12 \\ 12:9$$

$$41x = 12800$$

$$DL = 300$$

$$\begin{array}{r} \underline{12 \times 300} \\ 3600 \end{array} \qquad \begin{array}{r} \underline{9 \times 300} \\ 2700 \end{array}$$

164

123
91X9

349

$$B + C = \begin{array}{r} 116 \\ B B 0 0 \\ 2400 \\ \hline 1900 \end{array} \Rightarrow \boxed{1900}$$

8. A started a business with a capital of Rs. 5A000 and joined by B and C after 4 months & 6 months respectively. At the end of the year, the profits were shared in the ratio $1:4:5$. What is the difference between the investments of B and C.

	A	B	C	D
I	54000	n	y.	(x-0.1)
T.	12	8	6.	(x-0.1) = $\frac{y}{8}$

$$54000 \times \frac{1}{2} : \frac{x \times y}{4} : \frac{y \times b}{3} = 88 - 0.5x + x^2$$

$$1:6:5 = 54000 \times 6 : 4x : 3y$$

$$\frac{1}{4} = \frac{54000 \times 6}{4\pi}$$

$$AN = \frac{2}{5}4000 \times 6 \times 4$$

$$n = 324000$$

$$\frac{1}{5} = \frac{54000x^6}{3y}$$

$$\text{by} = 54000 \times 8$$

$$y = 108000$$

~~108000~~
~~3240~~

2-4

324800

324000
108000

9-6 000

Ans = 216000

29. Two friends Mohan & Rohan started a business by investing Rs. 1,50,000 & Rs. 2,00,000 respectively. After 6 months Rohan withdrawn some amount from his investment. At the same time, a third friend Gaurav joined the business by investing the same amount which Rohan has withdrawn. At the end of the year, Rohan & Gaurav has distributed their profits in the ratio 5:3. If the total profit for that year was Rs. 1,54,000. Find the share of Mohan in the profit.

A 15 B 20 C 20-x D x

I 15 T 12 20 20-x x

T 12 6 6

$$15 \times 12 : 20 \times 6 + (20-x)6 : x \times 6$$

$$15 \times 12 : -120 + (120-6x) : 6x$$

$$15 \times 12 : 120 + 120 - 6x : 6x$$

$$15 \times 12 : 240 - 6x : 6x$$

$$\frac{P}{G} = \frac{5}{3} \Rightarrow \frac{240 - 6x}{6x}$$

$$= \frac{6(40-x)}{6x}$$

$$\frac{5}{3} = \frac{40-x}{x}$$

$$5x = 120 - 3x$$

$$8x = 120$$

$$x = \frac{120}{8} = 15$$

$$\boxed{x = 15}$$

$$15 \times 12 : 240 - 6(15) : 6 \times 15$$

$$15 \times 12 : 180 : 15 \times 6$$

$$12 : 10 : 6$$

$$\boxed{6 : 5 : 3}$$

$$15 \times 12 : 20 \times 6 + (20-x)6 : x \times 6$$

$$15 \times 12 : 120 + (120-6x) : 6x$$

$$15 \times 12 : 240 - 6x : 6x$$

$$\frac{240 - 6x}{6x} = \frac{5}{3}$$

$$720 - 18x = 30x$$

$$120 - 3x = 5x$$

$$120 = 8x$$

$$x = \frac{120}{8} = 15$$

$$\frac{3}{90} \times 15 \times 6$$

$$15 \times 12 : 180 : 15 \times 6$$

$$14x = 1,54,000$$

$$x = \frac{154000}{14} = 11000$$

$$\frac{15 \times 6}{90} \times 11000$$

$$240 \times \frac{11000}{90}$$

$$240 \times 120 = 28800$$

$$\frac{240}{90} \times 11000$$

$$240 \times \frac{11000}{90}$$

$$240 \times 120 = 28800$$

$$\frac{240}{90} \times 11000$$

10. A, B and C started a business. A invested for 4 months and claims $\frac{1}{8}$ th of the total profit, B invested for 6 months and claims $\frac{1}{3}$ of the total profit, while C invested Rs 1560 for 8 months. Find the sum of investment made by A and B together.

Profit \Rightarrow A $\rightarrow \frac{1}{8}$ of total profit

B $\rightarrow \frac{1}{3}$ of Total Profit

$$\frac{1}{8} : \frac{1}{3}$$

\therefore

LCM of (8, 3) = 24

24

Profit ratio \Rightarrow A : B : C \Rightarrow $3 : 8 : 13$

$$A = \frac{1}{8}(24) = 3$$

$$B = \frac{1}{3}(24) = 8$$

$$C \Rightarrow 24 - (A+B) = 24 - 11 = 13$$

A	B	C
1	2	3
4	6	8

$$3 : 8 : 13 \Rightarrow A \times 4 : B \times 6 : 1560 \times 8$$

$$\frac{A}{C} = \frac{A \times 4}{1560 \times 8} = \frac{3}{13}$$

$$A = \frac{3 \times 120}{13 \times 4} = \frac{120 \times 2 \times 3}{120 \times 13}$$

$$\text{Sum of } A+B = 2000$$

$$\frac{B}{C} = \frac{B \times 6}{1560 \times 8} = \frac{8}{13}$$

$$B = \frac{8 \times 120}{13 \times 6} = \frac{120}{13 \times 6}$$

$$B = 1280$$

511. A, B and C started a business with A investing $33\frac{1}{3}\%$ of total capital, B investing 25% of the remaining and C invested the rest. If the total profit at the end of year was Rs. 1,62,000. Find the share of A in the profit.

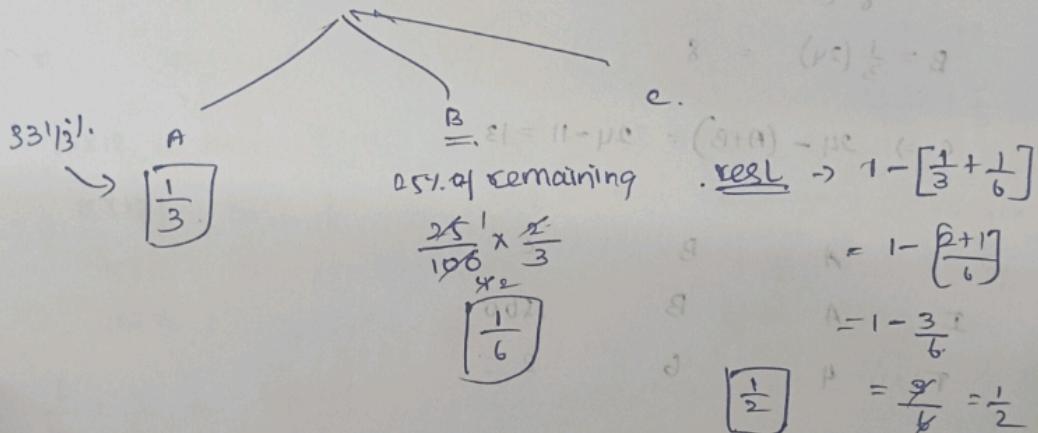
convert percentage into fraction $\rightarrow \times$

Here Time is constant.

when T is constant

then $P \propto I$

Total Investment (A, B, C)



$$\frac{1}{3} : \frac{1}{6} : \frac{1}{2} = \boxed{2 : 1 : 3} \rightarrow \text{Profit (P} \propto \text{I})$$

A's share = $\frac{1}{6}$

$$\frac{2}{6} \times 27000 = 54000$$

$$6x = 1,62,000 \\ x = \frac{27000}{162000} \\ x = 27000$$

$$\frac{2}{6} \times 1,62,000 = 54000$$

$$54000 //$$

12. A, B and C started a business with their investment in the ratio 2:3:5. A increased his capital by 50% after 4 months, B increased his capital by 33 $\frac{1}{3}\%$ after 6 months and C withdrew his capital by 50% after 8 months. At the end of the year, if the total profit was Rs 86800, find the difference between the shares of A and C in the profit.

$$\begin{array}{ccc}
 & \text{A} & \text{B} \\
 \text{Initial} & 2x4 & 3x6 \\
 \text{After 4 months} & 2x4 + 3x8 & 3x6 + 4x6 \\
 \text{After 8 months} & 2x4 + 3x8 + 5x8 & 3x6 + 4x6 + 5x8 \\
 & \frac{56}{2} & \frac{56}{2} \\
 & \frac{56}{100} \times 5 & \left[\frac{5-5}{2} \right] \\
 & \frac{10-5}{2} = \frac{5}{2} &
 \end{array}$$

Profit ratio. 16 : 21 : 25

$$\begin{aligned}
 62x &= 86800 \\
 x &= \frac{86800}{62} = 1400
 \end{aligned}$$

$$\begin{aligned}
 A \text{ and } C &\Rightarrow 25 - 16 = 9x \\
 &= 9(1400)
 \end{aligned}$$

$$A \text{ and } C = 12600$$

$$\begin{array}{r}
 62 \\
 \underline{\times} 14 \\
 \hline
 248 \\
 41 \\
 \hline
 860 \\
 41 \\
 \hline
 12600
 \end{array}$$

13. A, B and C started a business investing each Rs. 20000. After 5 months, A withdrew Rs. 5000, B withdrew Rs. 4000 and C withdrew Rs. 6000 more. At the end of the year, if the total profit is Rs. 69900 find the share of A in the profit.

$$\begin{array}{cccc} \text{A} & \text{B} & \text{C} & \\ 20 \times 5 & 20 \times 5 & 20 \times 5 & \frac{3 \times 5 \times 7}{105} \\ + 15 \times 7 & + 16 \times 7 & + 26 \times 7 & \frac{416 \times 7}{112} \\ \hline 100 & 105 & 112 & \end{array}$$

$$100 : 105 : 100 + 105 : 100 + 112 : 100 + 112$$

$$100 : 105 : 100(1+105) : 100(1+112) : 100(1+112)$$

$$205 : 212 : 212 : 212 : 212$$

$$\begin{aligned} \text{A's share} &\Rightarrow \frac{205}{699} \times 69900 \\ &\Rightarrow 20500 \end{aligned}$$

$$\begin{aligned} 205 & \\ 212 & \\ 212 & \\ \hline 699 & \\ 699x = 69900 & \\ x = 100 & \end{aligned}$$

Rough work
do expt
Ques

$$\begin{aligned} 256 & \\ 212 & \\ 300 & \\ \hline 868 & \\ 868x = 282160 & \\ 868 & \\ \hline 325 & \\ \frac{325 \times 30}{975} & \\ \frac{325 \times 3.12}{975} & \\ \frac{101400}{975} & \\ \end{aligned}$$

$$\begin{aligned} 325 & \\ 705 & \\ 1410510 & \\ 282100 & \\ 868 & \\ 434 & \\ 217 & \\ 217 \times 2 & \\ 434 & \\ 217 \times 3 & \\ 651 & \\ 217 \times 4 & \\ 868 & \\ \frac{3}{1085} & \\ \end{aligned}$$

14. A, B invested after

but is the
of R

Inv

Investm

$\frac{1685}{80}$

$$\begin{aligned} 150 & \\ 205 & \\ 205 & \\ \hline 355 & \\ 2184 & \\ 184 & \\ 192 & \\ 256 & \\ 120 & \\ 192 & \\ \hline 372 & \end{aligned}$$

15. A was per
a

14. A, B and C entered into partnership by investing in the ratio $\frac{2}{5} : \frac{3}{4} : \frac{5}{8}$. After 1 month, A increased his capital by 50%. but B decreased his capital by 20%. What is the share of B in the total profit of Rs. 2,82,100 at the end of the year.

$$\text{Investments} \frac{2}{5} : \frac{3}{4} : \frac{5}{8} \rightarrow \begin{array}{r} 2 \\ 2 \\ 2 \\ 2 \\ \hline 18 \end{array} \quad (40)$$

$$\left(\frac{2}{5} : \frac{3}{4} : \frac{5}{8} \right) \times 40$$

Investment $\Rightarrow 16 : 30 : 25$

~~16~~
40

$$\begin{array}{ccc} A & B & C \\ 16 \times 4 & 30 \times 4 & 25 \times 12 \\ 24 \times 8 & 24 \times 8 & \end{array}$$

$$256 : 312 : 300 \Rightarrow 868n = 282100 \quad n = \frac{282100}{868} = 325$$

$$B \Rightarrow \frac{312 \times 325}{101400} =$$

101400

15. A and B started a partnership. A's investment was 3 times the investment of B and his time period of investment 2 times of B. If B received a profit of Rs. 1000. Find the total profit.

$$\begin{array}{lll} A & B \\ I. & 3n & n \\ T. & 2t & t \end{array}$$

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

$$1n = 4000$$

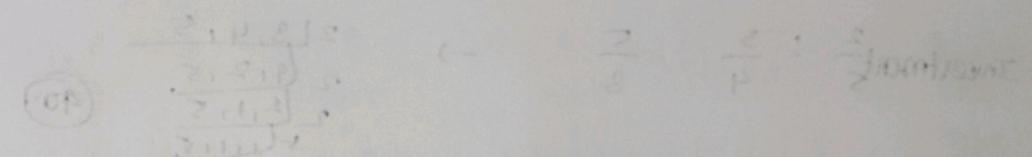
$$6n = 24000$$

$$3x \times 2t : n \times t$$

$$6 : 1$$

Total Profit \Rightarrow $24000 + 4000$

$$\boxed{28000}$$



16. In an business partnership among A, B ~~and~~ C & D the profit is shared as follows. $\frac{A}{B} = \frac{B}{C} = \frac{C}{D} = \frac{1}{3}$
If the total profit is Rs. 4,00,000, Find the share of C in the profit

$$A:B:C$$

\swarrow

$$\begin{array}{cccc} A & B & C & D \\ \text{Profit ratio} & 1 & 3 & 1 \\ & 1 & 3 & 1 & 3 \\ & 1 & 3 & 1 & 9 \end{array}$$

$$\begin{aligned} \frac{A}{B} &= \frac{1}{3} \\ \frac{B}{n} &= 3 \end{aligned}$$

$$1:3:9$$

$$28000 = 40x = 400000$$

$$n = \frac{100000}{400000}$$

$$\boxed{n = 10000}$$

$$A:B = (1:3) \times 1$$

$$B:C = (1:3) \times 3$$

$$C:D = (1:3) \times 9$$

$$9 \times 10000 = \boxed{90000}$$

17. The time periods of A and B in a business are in the ratio 4:5. If they have to share the profits in the ratio 5:3. Find the ratio of investment.

A	B
T	4
I	A B
P	5 3

$$5:3 = 4A : 5B$$

$$5 = 4A \quad 3 = 5B$$

$$A = \frac{5}{4} \quad B = \frac{3}{5}$$

$$\frac{A}{B} = \frac{\frac{5}{4}}{\frac{3}{5}} = \frac{5 \times \frac{3}{4}}{3} = \frac{3}{4} = A:B = 3:4$$

$$= \frac{5}{4} \times \frac{5}{3} = \frac{25}{12} = A:B = 25:12$$

$$1:3:9$$

$$B = (1:3) \times 1$$

$$C = (1:3) \times 3$$

$$D = (1:3) \times 9$$

18. A, B, and C started a business by investing the capital in the business in the ratio 5:6:8. At the end of the time periods per which they invested the capital, they received profit in the ratio of 5:3:12. find the ratio of capital?

A	B	C
T	5	6
I	A B C	
P	5 3 12	

$$5:3:12 = 5A : 6B : 8C$$

$$5A = 5 \quad 6B = 3 \quad 12 = 8C$$

$$A = 1$$

$$B = \frac{1}{2}$$

$$12 = 8C$$

$$C = \frac{12}{8} = \frac{3}{2}$$

$$C = \frac{3}{2}$$

$$(1:1/2:3/2) \times 2$$

$$1 \quad 1/2 \quad 3/2$$

$$2:1:3$$

$$[2:1:3]$$

19. A puts ₹ 600 more than B in a business but B has invested his capital for 5 months while A invested for only 1 month. If the share of A in the profit is ₹ 48 more than that of B out of a total profit of ₹ 528. Find the capital invested by A.

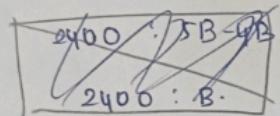
A B
I. ₹ 600 B

T. 4. 5

$$\frac{\text{Profit}}{P+48 : P} = \frac{4B+2400}{5B}$$

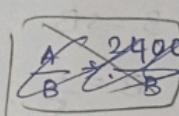
$$(B+600)4 : B5$$

$$4B+2400 : 5B$$



$$P+48 + P = 528$$

$$2P+48 = 528$$



$$2P = 528 - 48$$

$$2P = 480$$

$$P = \frac{480}{2} = 240$$

$$\begin{array}{r} 12 \\ 528 \\ \hline 480 \end{array}$$

$$P = 240$$

$$\text{Profit ratio} = 240 : 240 \Rightarrow [6:5]$$

$$\begin{array}{l} 240 : 240 = 4B+2400 : 5B \\ 240 = 4B+2400 \\ 5B = 2400 \\ B = \frac{2400}{5} = 480 \end{array}$$

$$240 - 240$$

$$240$$

$$288 : 240$$

$$144 : 120$$

$$72 : 60$$

$$36 : 30$$

$$[6 : 5]$$

$$\frac{6}{5} = \frac{4B+2400}{5B}$$

$$5 = 5B$$

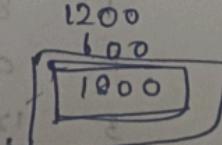
$$B = 1$$

$$6 = 4B+2400$$

$$30B = 20B+12000$$

$$10B = 12000$$

$$B = 1200$$



21.

Pn

of

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20. A and B entered into partnership with Rs 60000 and Re. 5000 respectively. C joins them before B months contributing 70000 and A leaves them after a months from the starting of the year. They shared the profit in the ratio 18:20:21. Find the values of a and b.

b.

A	B	C
60	50	40
A	12	B
T		
12	10	8

$$\frac{12}{18} \times \frac{40}{50} = \frac{48}{90}$$

$$60 \times A : 50 \times 12 : 40 \times B$$

$$6A : 50 \times 12 : 4B$$

$$18 : 20 : 21 \Rightarrow 6A : 60 : 4B$$

$$\frac{18}{20} = \frac{6A}{60} \Rightarrow 6A = \frac{3}{20} \times 60 \Rightarrow A = \frac{3 \times 18}{2} = 9 \quad [A=9]$$

$$\frac{20}{21} = \frac{60}{7B} \Rightarrow 7B = \frac{60 \times 21}{20}$$

$$B = \frac{60 \times 21}{20 \times 7}$$

$$[B=9]$$

21. Two businessman A and B invested in a business in the ratio 5:8. They decided to reinvest 30% of the profit they have earned back into the business. The remaining profit they have distributed among themselves. If A & B share in the profit made by the business was ₹ 87500. Find the profit.

Q. 8

$$\frac{5}{13} \times \frac{70}{100} \times x = 87500$$

$$x = 12500$$

$$\begin{array}{r} 12500 \\ 12500 \\ 100000 \\ \hline 162500 \\ 162500 \\ 162500 \\ \hline 162500 \end{array}$$

$$\frac{125 \times 3}{375} = \frac{125}{125}$$

TOTAL

A's

B's

30% of profit \rightarrow reinvest
 70% of profit \rightarrow distribute among themselves.

5:8 \rightarrow Investment

$P \propto I$. $\Rightarrow P = 5:8 \Rightarrow$ for 100% profit.

A share = 81500 \rightarrow 70% only distributed.

$$\frac{5}{13} \times \frac{70}{100} x \Rightarrow 81500$$

$$x = \frac{13 \times 2}{26} \times \frac{100}{70} \times 81500$$

$$= 1250 \times 260$$

original profit

~~Profit~~ $13 \times 1250 \times 260$

$$x = 32500$$

$$1250 \times 26$$

$$7500$$

$$2500$$

$$32500$$

$$3250 \times 13$$

$$42250$$

- 22) A and B started a business by investing rupees Rs 350000 and Rs. 140000 respectively. A gets 20% of the yearly profit for managing the business. The remaining profit is divided among them in the ratio of their investments. If A receives Rs. 38000 more than B at the end of the year, find the total profit made by the business.

	A	B	
I	350000	140000	$\Rightarrow 5:2$
T	12	12	

$$P \Rightarrow 5 \times 12 : 2 \times 12 \Rightarrow 5:2 \Rightarrow 7x$$

25
52
28
NS

23) A and B share ratio review

Total Profit $\rightarrow x$

$A:B \Rightarrow 35:14 \Rightarrow 5:2$

$$A's \text{ profit} = \frac{25}{100}x + \frac{1}{7} \times \frac{4}{100}x = \frac{27x}{35}$$

$$B's \text{ profit} = \frac{1}{7} \left(\frac{4}{100}x \right) = \frac{8x}{35}$$

$$\frac{27x}{35} : \frac{8x}{35} = 27:8$$

$$\frac{5}{7} \left(\frac{80x}{100} \right) \quad \frac{2}{7} \left(\frac{80x}{100} \right)$$

without 20%.

The profit shared ratio
A : B

$$P_A : P_B = \frac{27x}{35} : \frac{8x}{35} = 27:8$$

$$P_A = 38000 + P_B$$

Profit ratio.

$$P_A - P_B = 38000$$

$$19x = 38000$$

$$x = 2000$$

$$\text{Total Profit} = 35x = 35 \times 2000 = 70000$$

- Q3) A sum of Rs. 3115 is divided among A, B and C such that if Rs. 25, Rs. 28 and Rs. 52 are subtracted from their shares respectively. If the remaining amount ratio will be 8:15:20. Find the amount received by A, B and C.

$$A+B+C = 3115$$

$$A-25 : B-28 : C-52 = 8 : 15 : 20$$

$$\frac{A-25}{8} : \frac{B-28}{15} : \frac{C-52}{20} = 1 : 1 : 1$$

$$\frac{A-25}{8} = \frac{B-28}{15} = \frac{C-52}{20} = x$$

$$\frac{A-25}{8} = x \Rightarrow A = 8x+25$$

$$B = 15x+28$$

$$C = 20x+52$$

$$A = 8(70)+25 = 585$$

$$B = 1078$$

$$C = 1052$$

$$A+B+C = 3115$$

$$8x+25+15x+28+20x+52 = 3115$$

$$43x+105 = 3115$$

$$43x = 3010$$

$$\begin{array}{r} 25 \\ 52 \\ 28 \\ \hline 105 \end{array}$$

$$\begin{array}{r} 8010 \\ \times 3 \\ \hline \end{array}$$