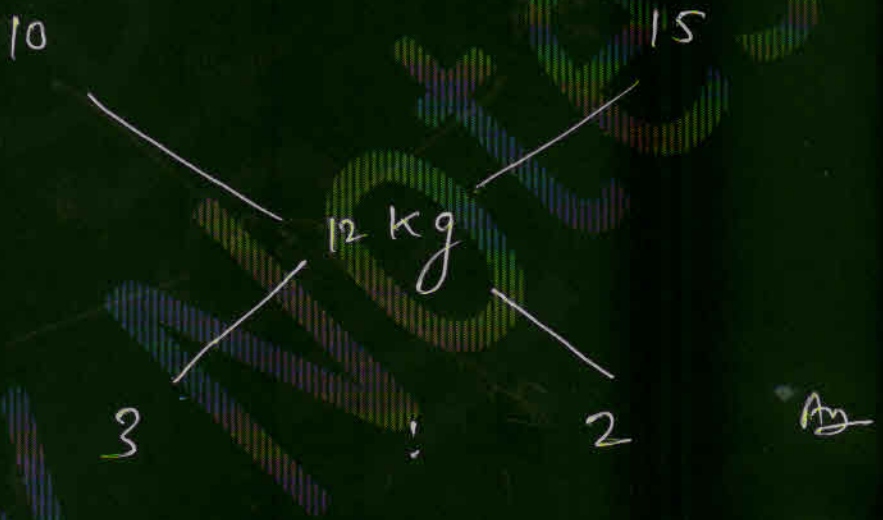
* — Mixture and alligation — *

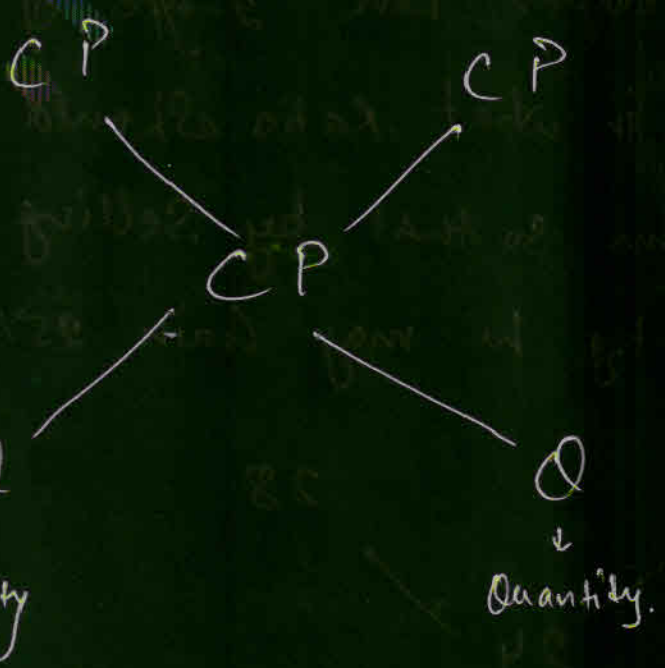
Q :- A shopkeeper have two type rice 10 per kg. & 15 Rs/Kg. In what ratio should he mixed both of them. So become of 12 per kg.



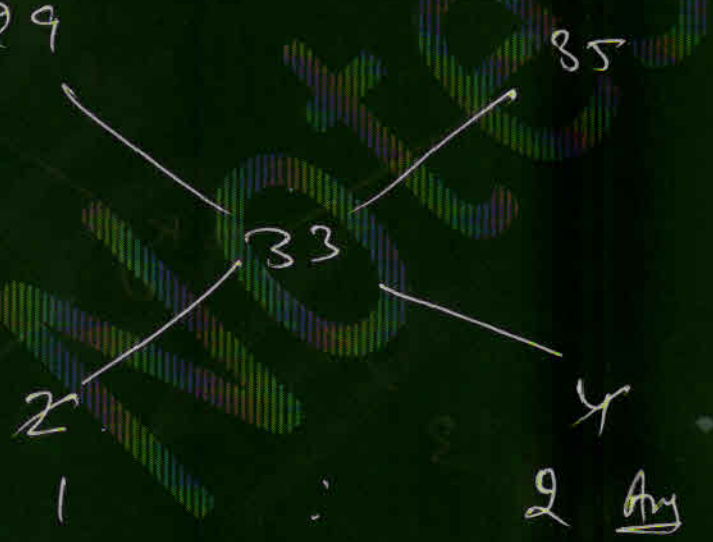
Ans

Sol:

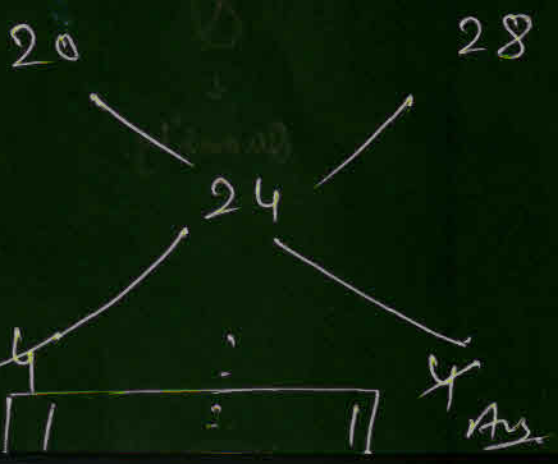
Method :-

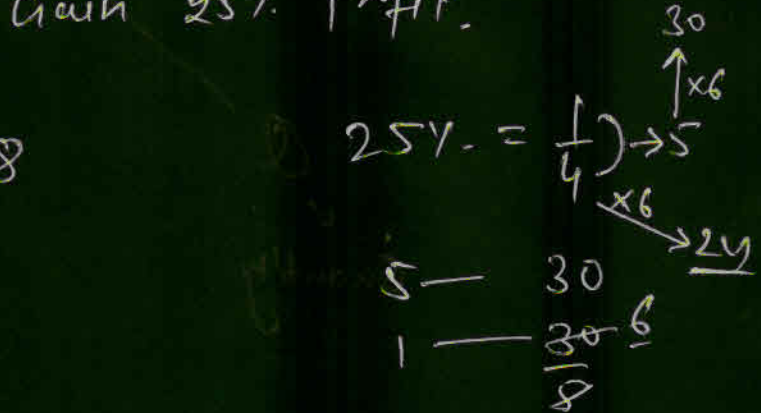


Q1- A shopkeeper have two type of Rice one 29/kg and 35 Per kg. In what ratio should be mixed of them. So the mixture becomes of 33 per kg.

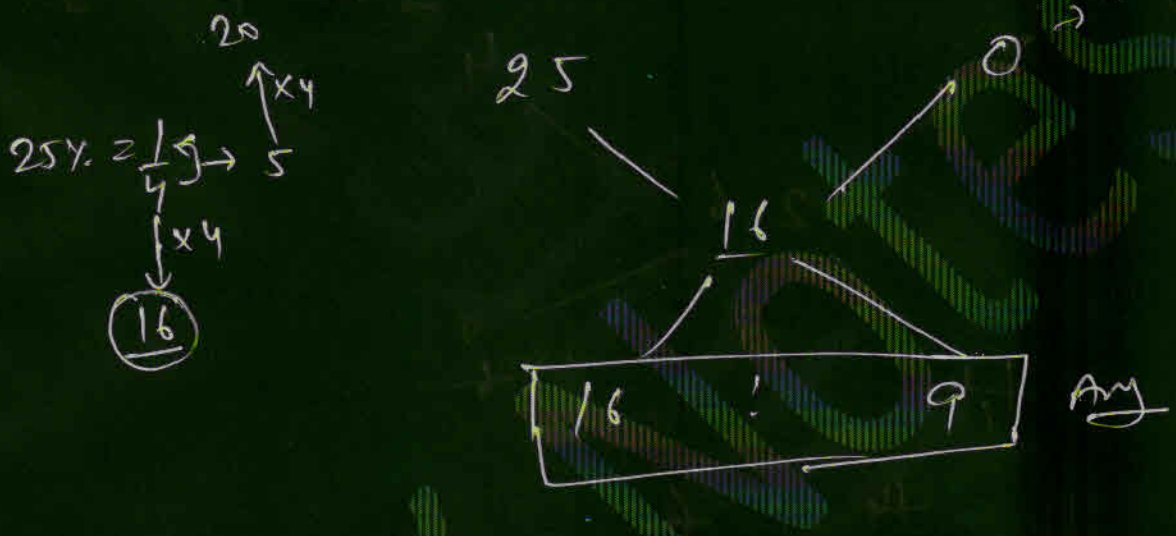


Q2: A shopkeeper have 2-type of Rice 20 kg & 28/kg in what Ratio should he mixed both of them so that by selling the mixture at 30 per kg he may Gain 25% Profit.





Q1- A man have Chamical of Rs 25 per Litre. in what ratio should he mixed water in it. So that by Selling the mixture at Rs = 20 per Litre He may gain 25% Profit.



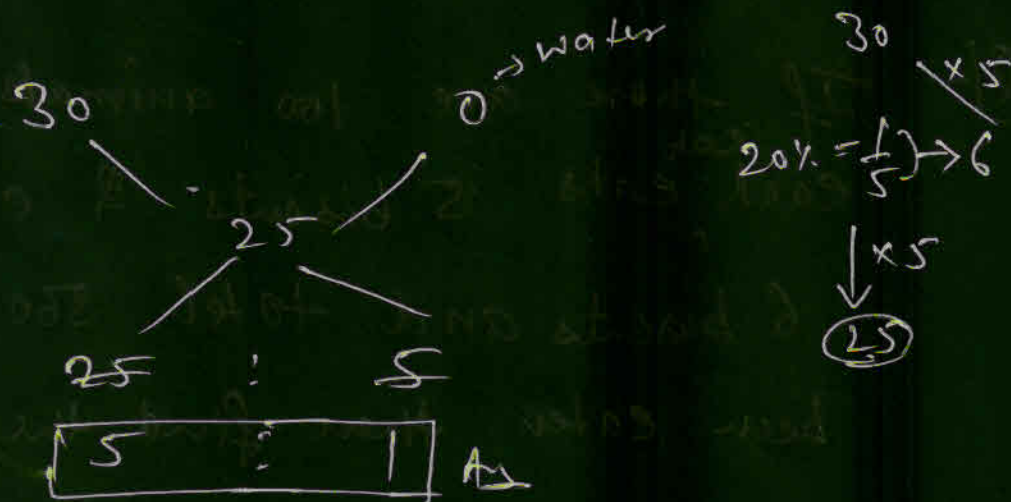
Q1- A man have milk of Rs = 30 P/Ltr. in what ratio Should he mixed water in it. So that by Selling the mixture at it. CP. He may gain 20% Profit.

Note:-

SP = CP

Profit = 1/5

5:1

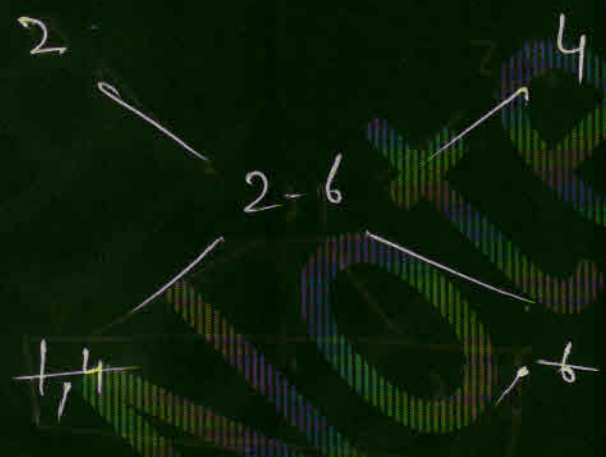


Q1. If there are 200 animals han & dogs. if the total no. of legs 520. find the no. of han & dogs.

$$\frac{520}{200} = 2.6$$

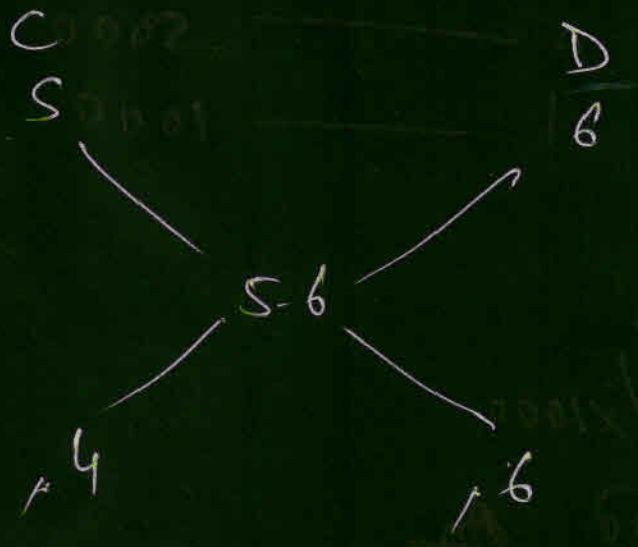
han have 2 leg. ← H

D → dog have four leg.



Ans.

Q]- If there are 100 animals Cats & Dogs each cat eats 5 biscuits & each dog eats 6 biscuits and total 560 biscuits have been eaten. then find the no. of Cats & dogs



$\frac{560}{100} = 5.6$

4 : 6

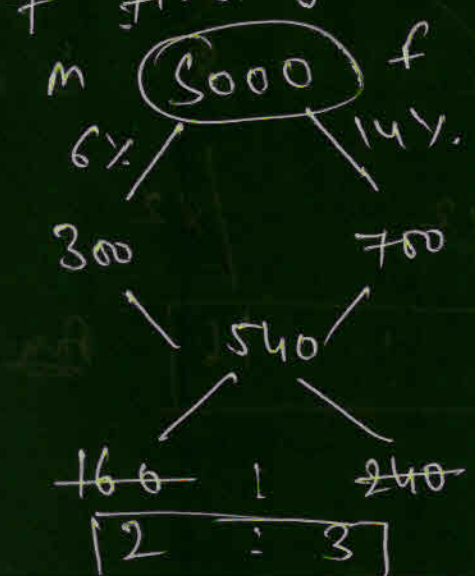
2 : 3 = 5 — 100

1 — 20

×20 ×20

40 : 60 Ans

Q:- The population of a town 5000 male are increasing by 6% & females are increasing by 14%. & after one year the population becomes 5540. then what was the no. of males in the starting of first year.

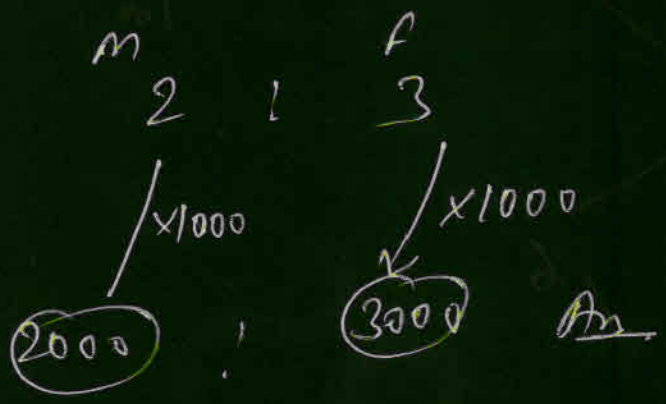


5540 − 5000

= 540

$2 : 3 = 5 \text{ —— } 5000$

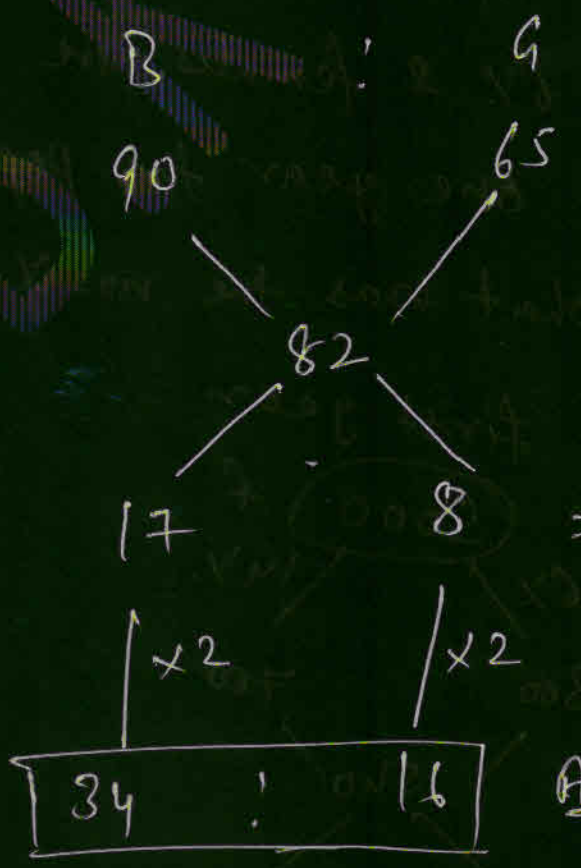
$1 \text{ —— } 1000$



Q:- A Sum of Rupees 41 is divided among 50 Children each boy gets 90 Paise and Girl get 65 paise. find the no. of boy & Girls.

41 ₹ → 4100 Paise.

$\frac{4100}{50} = 82$

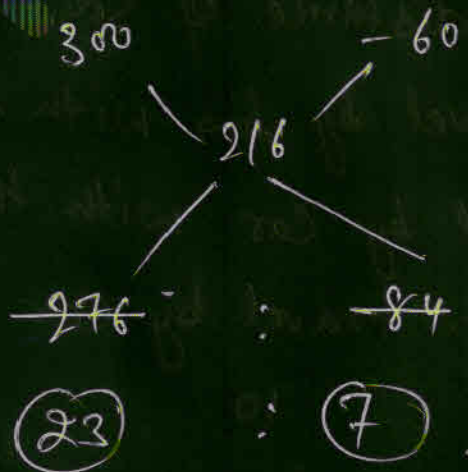


Q1- The Labour was employee for 30 Day, He gets 10Z each working a day & cut by Rupees 2 an each holyday. find the no. of working days & holyday if he get Rs. 216.

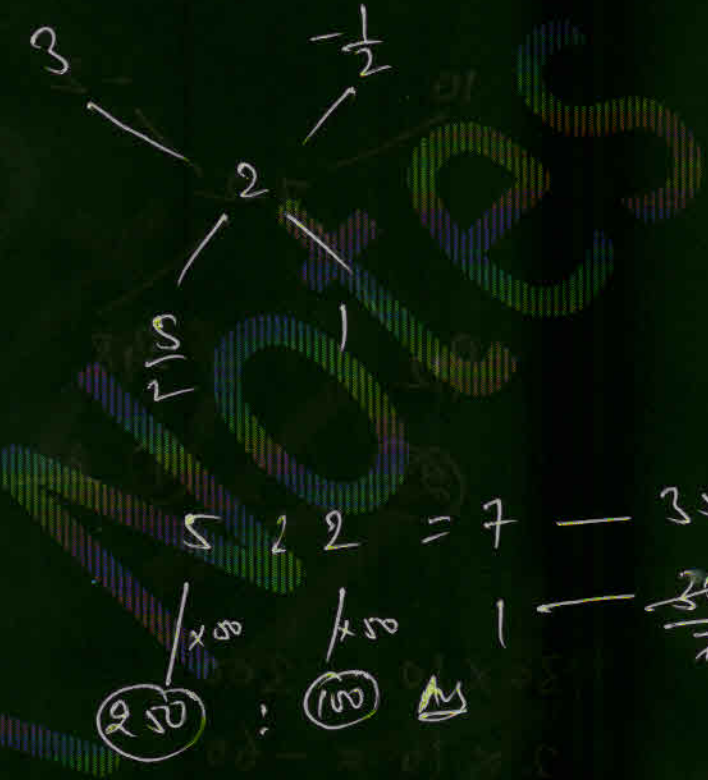
or

$30 \times 10 = 300$

$2 \times 10 = -60$



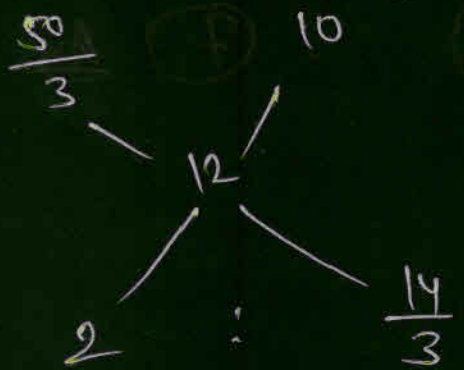
Q1- In an exam there are 350 Question. 3 mark is given for each Answer and half mark is deducted for each wrong Answer from. find the Correct & wrong Answer. If the student Score 700 marks.



$2 = 7 - 350$

$1 = \frac{350}{7} = 50$

Q2- A man travel distance of 500 km in total 12 hr. first He Travel by bus with the Speed of 30 km/hr then He Travel by car with the Speed of 50 km/hr find the dist. travel by car.



$2 : \frac{14}{3}$

$2 \times 3 : 14 = 20 \text{ —— } 500$

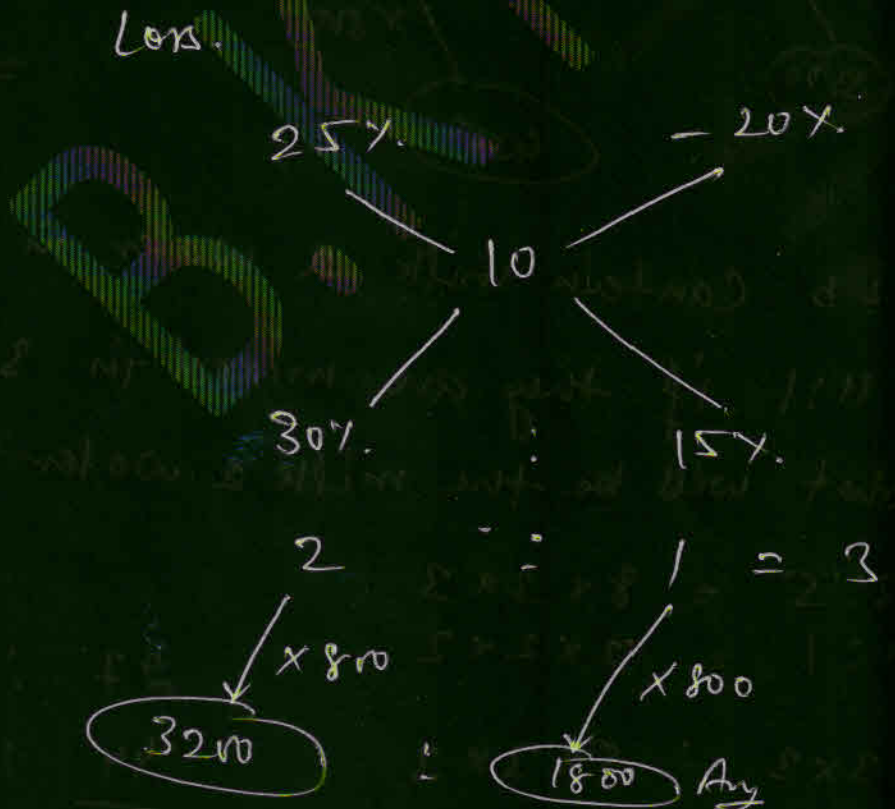
$1 \text{ —— } \frac{500}{20} = 25$

$6 : 14$

$\times 25 \quad \times 25$

$150 : 350$ Ans

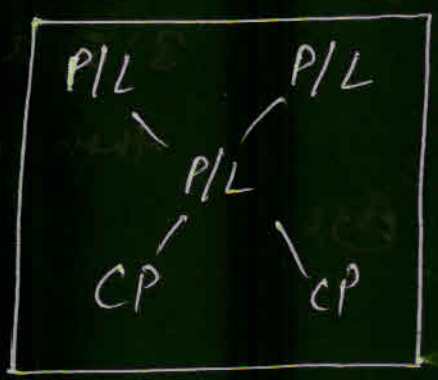
Q)- A man bought 2 horse for Rs 5400. He sold. on at 25% profit & Second 20% Loss & in the the hole transaction. He earn the Profit Rs 540. find the CP of the horse sold at Loss.



5400×25

$\frac{540}{5400} = \frac{1}{10} = 10\%$

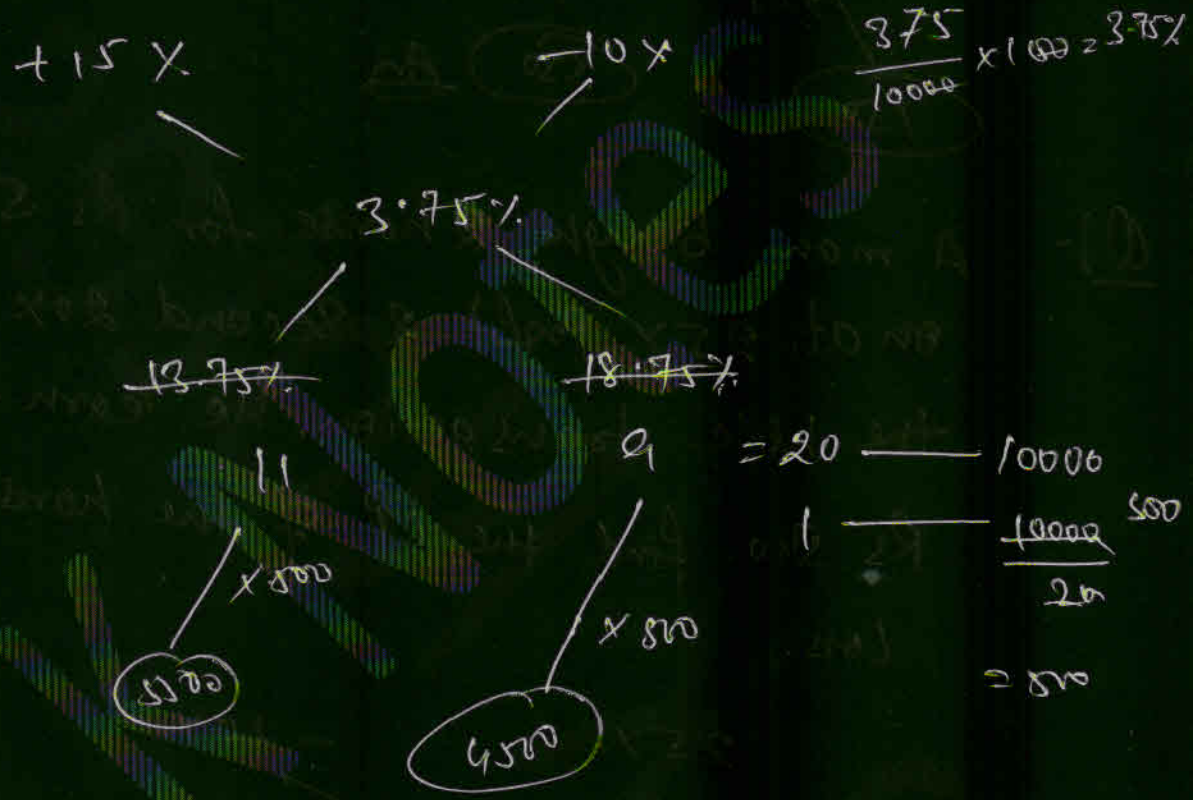
10



$3 \text{ —— } 5400$

$1 \text{ —— } \frac{5400}{3} = 1800$ Ans

Q:- A man bought 5 horse and 10 cows in Rupees 1000. He sold each horse at 15%. Profit and each cow 10% Loss. During the hole transaction he earn the profit of 375 find the CP of each and each cow.



Q:- Vessals a & b Contain milk & water in Ratio 3:5 & 11:1 if they are mixed in 3:2 then what will be the milk & water becomes

Ans:-

$3:5 = 8 \times 3 \times 3$

$11:1 = 12 \times 2 \times 2$

$3\times3\times3 : 5\times3\times3$

$27 : 45$

$11\times2\times2 : 1\times2\times2$

$44 : 4$

$27 : 45$

$44 : 4$

$\boxed{71 : 49}$

Ans

Logics :- Remember always

Equally :- 1 : 1

half & half :- 1 : 1

10 L each :- 1 : 1 : 1 → in three Containers

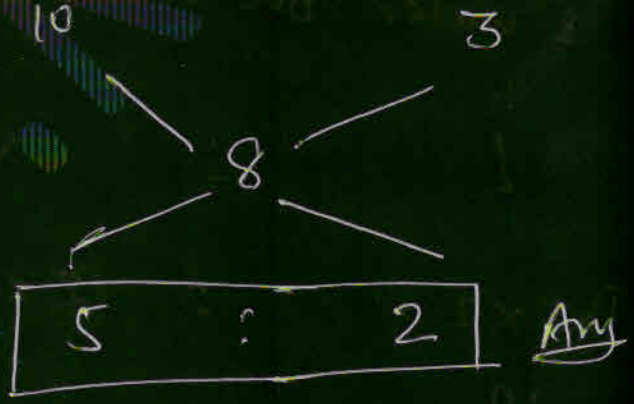
10 L : 20 L : 30 L :- 1 : 2 : 3 → In three Containers

Q :- The Ratio of land & water on the earth is Ratio 1:2 and the Ratio of land & water in the northen hemisphere is 2:3 find the Ratio of land & water on Southern hemisphere?

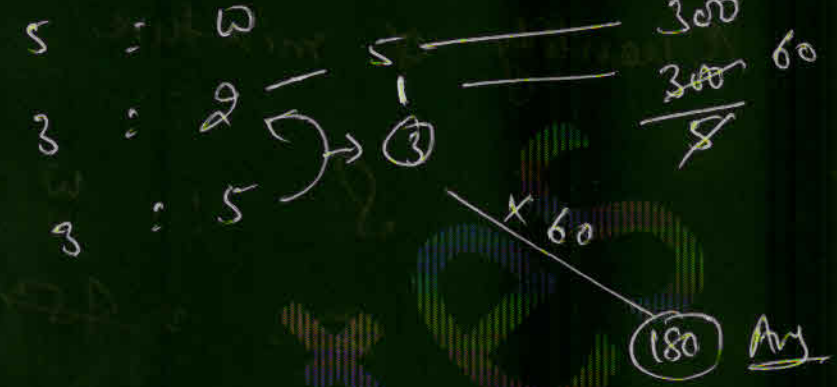
	L	:	W	total
E =	(1) × 5 × 2 = 10	:	(2) × 5 × 2 = 20	(3) × 5 × 2 = 30
N =	(2) × 3 × 1	:	(3) × 3 × 1	(5) × 3 × 1 = 15
	6	:	9	
S =	4	:	11	Ans.

Q:- Two vessals a & b Cantain milk & water 4:5 and 5:1 in what Ratio they should be mixed so that the new Ratio milk & water is 5:4.

	M	:	W	
a	4	:	5	= 9 × 2 = 18
b	5	:	1	= 6 × 3 = 18
a + b	5	:	4	= 9 × 2 = 18



Q1- 300 l mixture of sugar & water cantain 60% how many Litre water must be added. So the new ratio of sugar & water 3:5



Q1- A Vessal cantains 81 Litre mixture of milk & water in Ratio 5:4 what amount of water must be added. So that the new Ratio mille & water becomes 3:5

M : W

5 : 4 = 9

3 : 5 = 8

15 : 12 = 27 × 3 81

15 : 25 → 13 × 3 36 Ans

Q:- A Solution a salf & water 5%. Salt if 20 Litre of water is evapurated from It. then the Salt becomes 15%. find the initial Quantity of mixture

Ans:-

$$S : W$$

$$5\% = 95\%$$

$$1 : 19$$

$$15 : 85$$

$$3 : 17$$

$$1 \times 3 : 19 \times 3$$

$$3 \times 1 : 17 \times 1$$

$$3 : 57 = 60 \times \tfrac{1}{2} = 30$$

$$3 : 17 \quad 40 \xrightarrow{\times \frac{1}{2}} 20 \text{ Ans}$$

Q:- 12 Litre mixture of acid & water contain 30% Acid. How many Litre of water must be evapurated from it. so that the acid becomes 40%.

A : W

3α : 7α

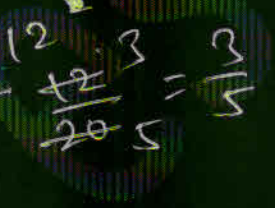
4α : 6α
2 : 3

3×2 : 7×2

2×3 : 3×3

6 : 14 = 20

6 : 9 → 5



Q:- A vessel Contain milk and water in Ratio 5:3 if 70 Litre of mixture is taken out and 32 Litre water is added in it then the Ratio becomes 3:5. find the initial Quantity of mixture.

Ans:-

M : W

70L.

5×3 / 15 — 3×3 / 9 = 24×2 = 48 → 118 L Ans

3×5 / 15 — 5×5 / 25 → 16 ×2→ 32

Q: Vessel Cantain Milk and water in Ratio 7:5. If 9 Litre of mixture is taken out & 9 Litre water is added. then the ratio becomes 7:9 what was the Quality is Starting.

M : W

7 : 5 = $12 \times \frac{9}{4} = 27$ L → 9L → 36 L

7 : 9 → 4 — 9 (×9/4)

21 (×3) (7) : 5 ⇒ 12 (×3) (3)

Q:- A Vessel Cantains Milk & water in Ratio 5:3. what Part of mixture the taken out and Replaced by the Same Part of water So that the new Ratio of milk & Wates becomes 3:5.

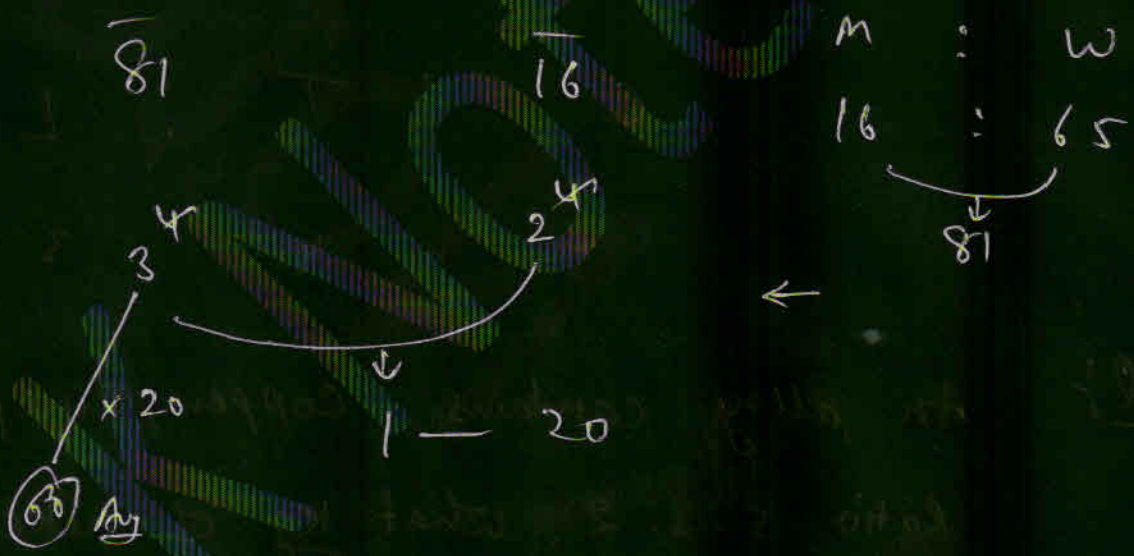
M : W

5 — 3 = 8

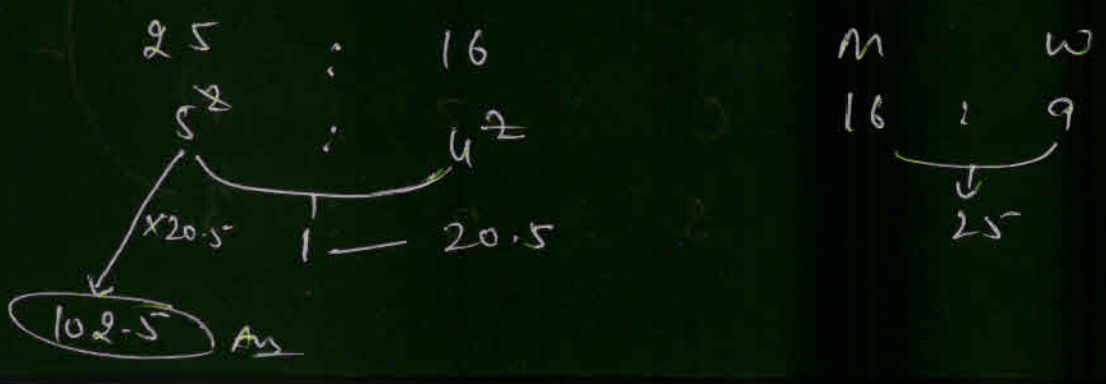
$\frac{2}{5} = 40\%$ Ans

3 — 5 = 8

Q1- A vessel was Initially ful of milk 20 Litre of milk is taken out & Replace by same Quantity of water. this process is Repeated 3 more time & At the end of all process the ratio of milk & water becomes 16:65. What was Initial Quantity of milk.



Q1- A vessal was initial full of milk 20.5 Litre milk is taken out in first process and Replace by water this Process is Repeated one more time find the initial Quantity of milk. if finally the Ratio becomes 16:9.



Q:- An alloy cantains zinc, Copper, tine in the Ratio 2:3:1 and another alloy cantain Capper, tine, Lacl in the Ratio 5:4:3. if the qual Rates of both the alloy melted and what will be the Led in the whole.

Z	C	T
2	3	1 = 6×2 = 12

C	T	L
5	4	3 = 12

$\frac{1}{24} : \frac{1}{8}$

$= 12\frac{1}{2}\%$

Ans

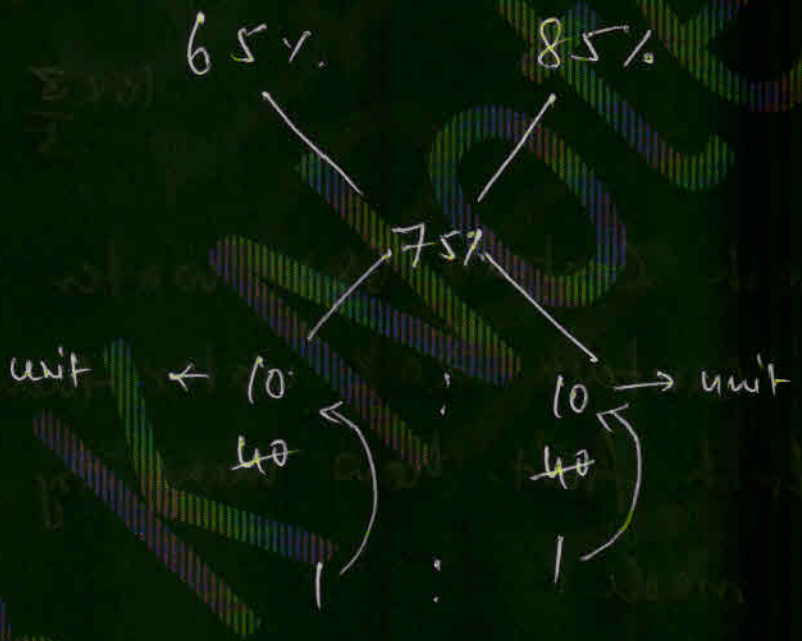
Q:- An alloy cantains Copper, zinc, nikel, in the Ratio 5:3:2. what kg of nikel must be added in 100 kg of that alloy. So that the new ratio becomes 5:3:3.

C	Z	N	
5	3	2	= 10 ×10 = 100

C	Z	N	
5	3	3	= 11 — 10 kg

Ans

Q:- Arpita Score 75%. Correct Answer in a Test of 80 Questions. from 1st 40 Question She corrects 65%. Then find how much Percent she should correct from Last 40 Question



Q:- A fresh food Cantains 90% water after some time It Cantains only 12% water If now weight of the fruit is 50 kg what was the initial weight of fruit?

P : W

1 × 22 : 9 × 22

22 : 198 = 220

22 : 3 = 25 × 2 → (50)

9 : 1

3 × 3 : 22 × 3

W : P

90 10

9 : 66 = 75

65

9 : 1 = 10

9 : 66 = 75 → 65

3 | 75

3 6 | 22

12 2 | 88

3 : 22

$10 \times \frac{3}{5} = \frac{30}{5}$ $\frac{2}{3}$

Q:- A fresh contain 68% water and dry food contain 20% water then from 75 kg of fresh fruit. how many dry fruits can be made?

P : W

8 : 17 = 25 ×3 → 75 kg

4×2 : 1×2

8 : 2 = 10 ×3 → 30kg

W : P → Remain

68 : 32

34 : 16

17 : 8

20 : 80

1 : 4