ALLIGATION

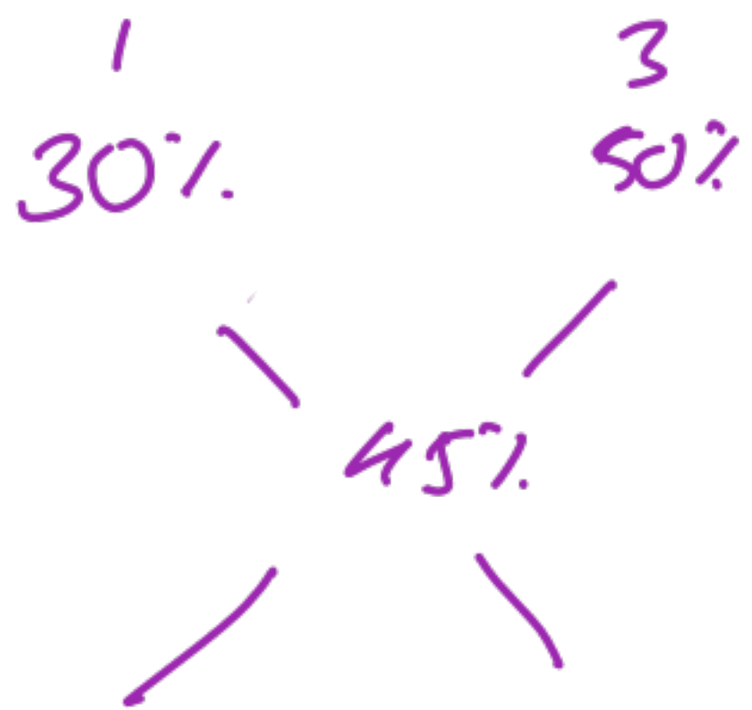
In what ratio Rs.18 per kg rice mixed with Rs.25 per kg rice that the rate of mixed rice becomes Rs.20 per kg?

(a) 5 : 2 ✓
(b) 2 : 5
(c) 4 : 5
(d) 5 : 4

In what ratio must a mixture of 30% alcohol strength be mixed with that of 50% alcohol strength so as to get a mixture of 45% alcohol strength

(a) 1:2 (b) 1:3

(c) 2:1 (d) 3:1



1 : 3

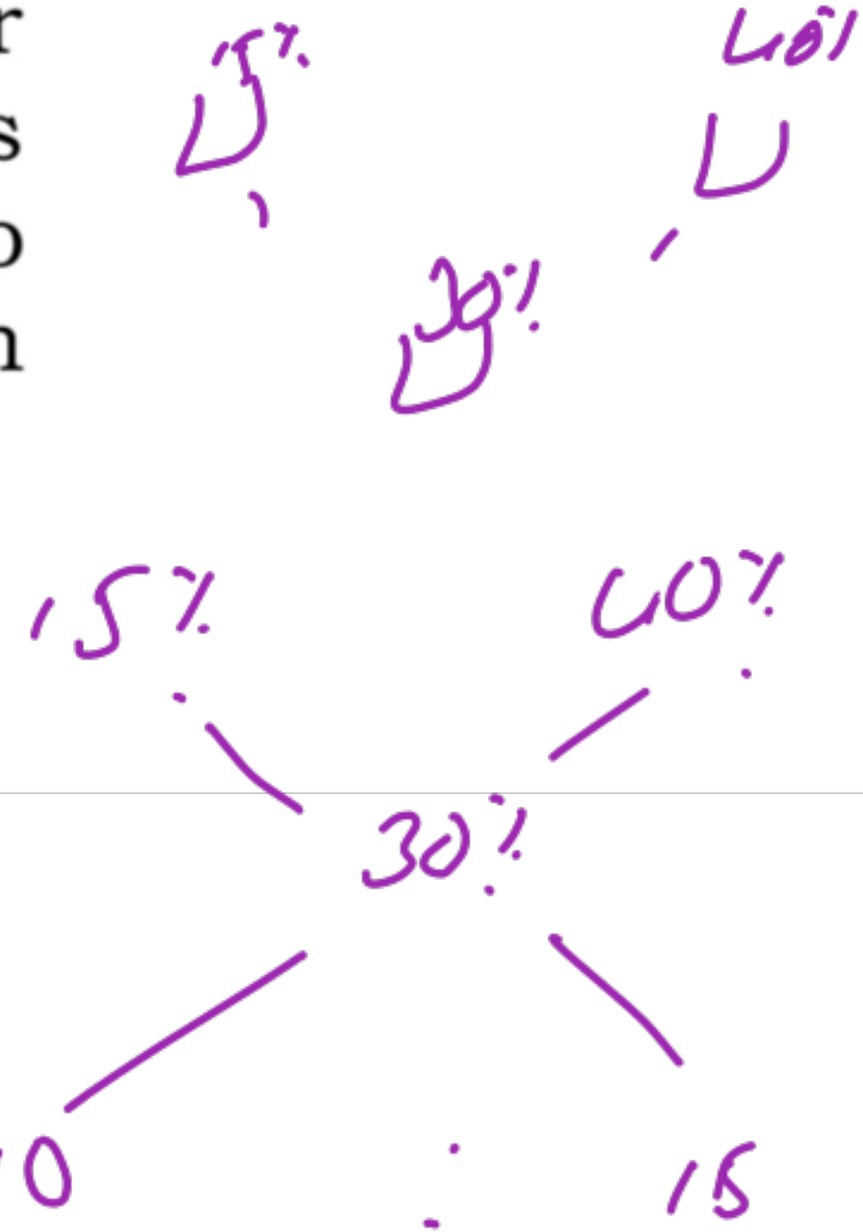
5 : 15

$\div 5 \Rightarrow$ 1 : 3

The ratio in which two sugar solutions of the concentrations 15% and 40% are to be mixed to get a solution of concentration 30% is

(a) 2:3 (b) 3:2

(c) 8:9 (d) 9:8

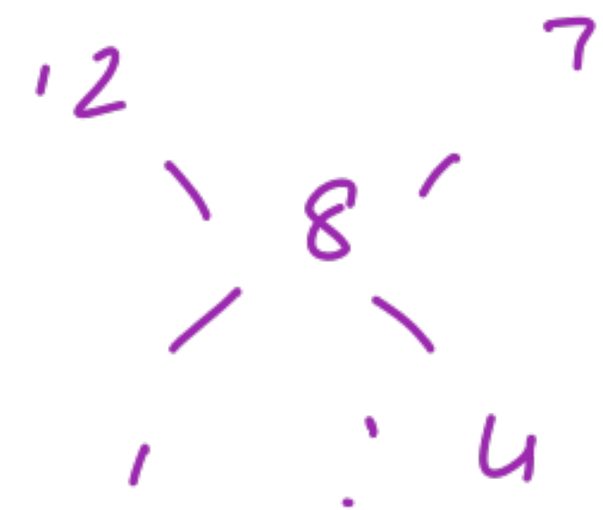


$\div 5 \Rightarrow$ 10 : 15 2 : 3

In what propotion must a grocer mix sugar at Rs. 12 a kg and Rs. 7 a kg Sugar as to make a mixture worth Rs. 8 a kg ?

(a) 7 : 12 (b) 1 : 4

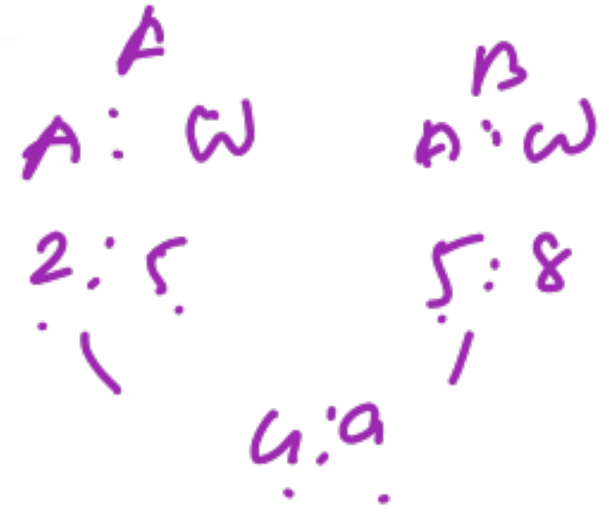
(c) 2 : 3 (d) 12 :7

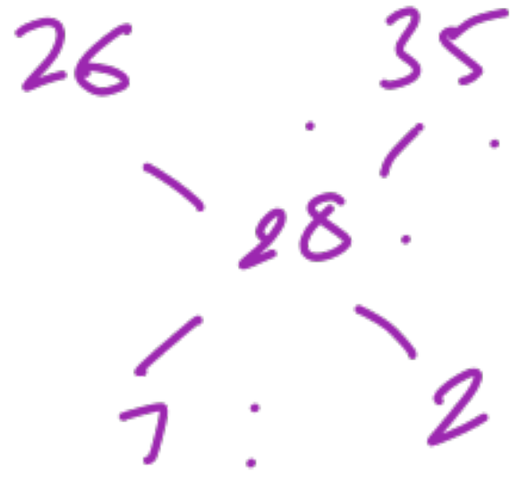


. Acid and water in 2 vessels A and B are in the ratio 2:5 and 5:8 respectively. In what ratio should the liquids in both the vessels be mixed to obtain a mixture of acid and water in the ratio 4:9?

(a) 2 : 7 (b) 7 : 2

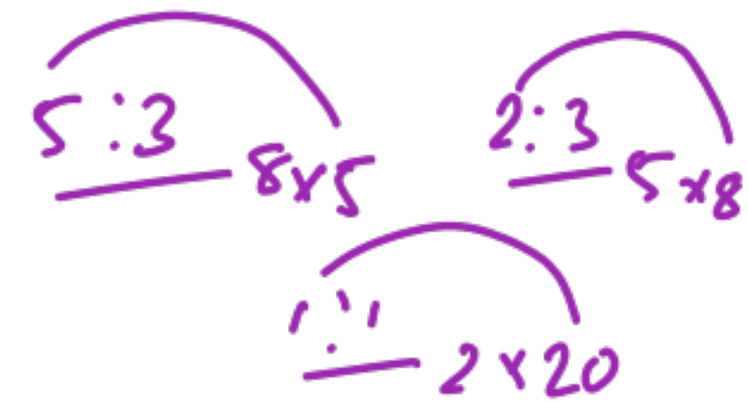
(c) 7 : 4 (d) 2 : 3

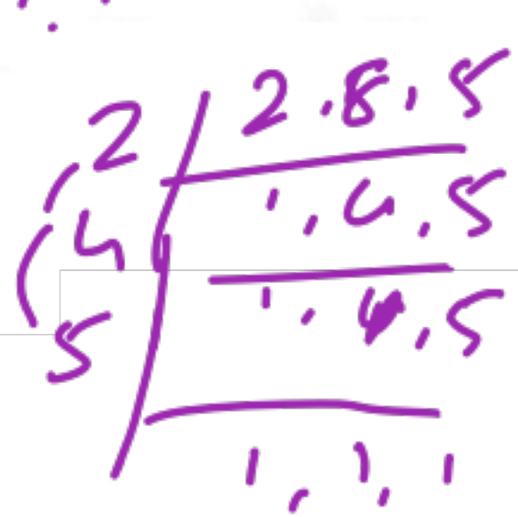


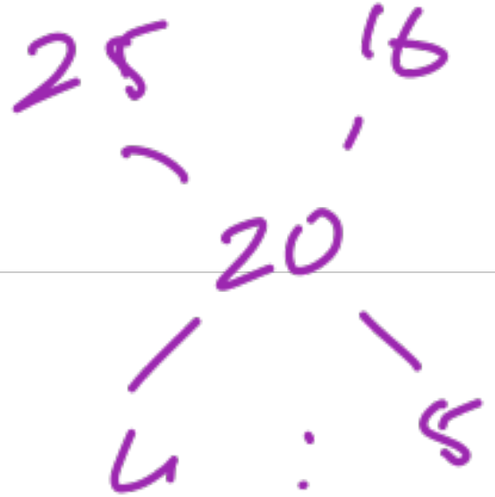


Two vessels A and B contain milk and water mixed in the ratio 5 : 3 and 2 : 3. When these mixture are mixed to form a new mixture containing half milk and half water, they must be taken in the ratio

(a) 2 : 5 (b) 3 : 5
(c) 4 : 5 (d) 7 : 3







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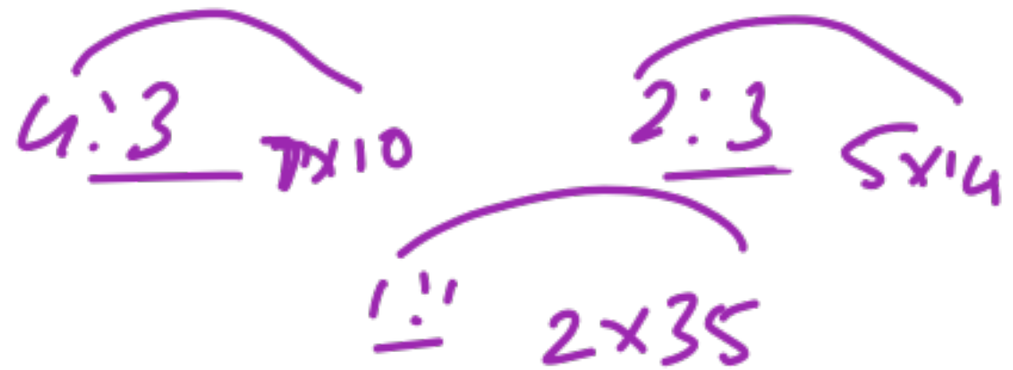
The acid and water in two vessels A and B are in the ratio 4:3 and 2:3. In what ratio should the liquid in both the vessels be mixed to obtain a new mixture in vessel C containing half acid and half water?

(a) 7:5
(b) 5:7
(c) 7:3
(d) 5:3



In what ratio tea of Darjling (Rs.280/kg) mixed with tea of Assam (Rs.220/kg) so that mixed tea sale to rate 294 Rs./Kg with 20% profit.

(a) 7 : 5
(b) 5 : 7
(c) 3 : 4
(d) None

CP CP SP

20% = 20/100 = 1/5 SP => CP

SP : 6 => 294

CP : 5 => 49×5

CP = 245

280 220

245

25 : 35

5 : 7

In what ratio must a grocer mix tea at Rs.60 per kg, and Rs.65 per kg, so that by selling the mixture at Rs. 68.20 per kg, he may gain 10%.

(a) 3:2 (b) 3:4

(c) 3:5 (d) 4:5

10% = 10/100 = 1/10.

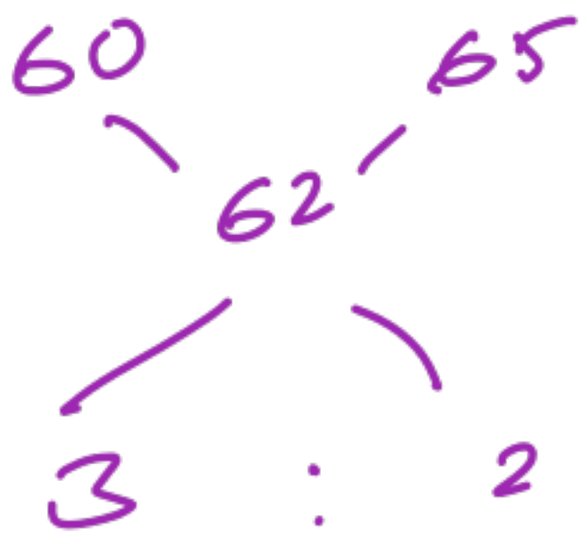
CP	SP
10	11
1	6.2

11 ⇒ 68.20

1 ⇒ 6.2

10 ⇒ 6.2 × 10

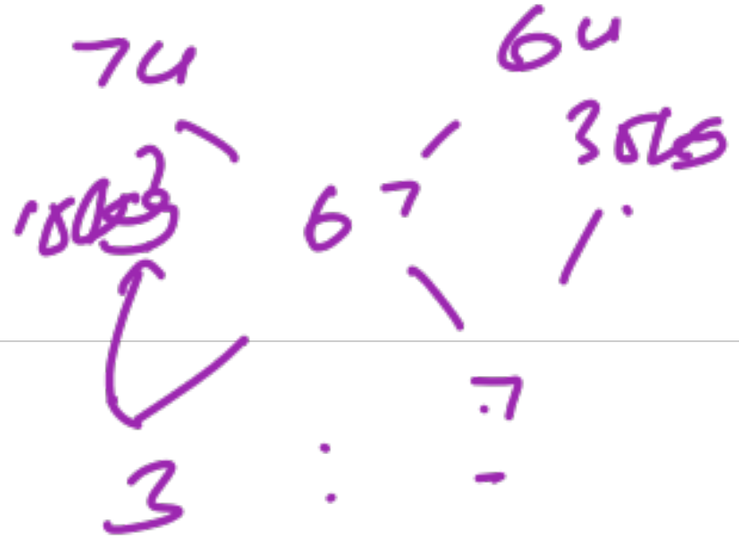
CP = 10 ⇒ 62



What quantity of wheat at rate Rs.7.4 per kg mixed with 35 kg of wheat which rate Rs.6.4 per kg so that price of mixed wheat become Rs.6.7 per kg?

(a)12 kg **(b) 15 kg**

(c) 21 kg **(d) 10 kg**



7 ⇒ 35kg

1 ⇒ 5kg

3 ⇒ 15kg

A farmer sells wheat. He mixes the two types of wheat he grows. 30 kg of the first group costs him ₹900 and 20 kg of the other group costs him ₹1100. At what price per kg should he sell the mixture so as to earn 25% on his average cost?

1. ₹40
2. ₹42
3. ₹50
4. ₹48

30 kg = ₹900

1 kg = 30

20 kg = 1100

1 kg = 55

30 : 20

3 : 2

x − 30 = 10

55 − x = 15

30 : CP

55 : CP

40 : CP

15 : 10

3 × 5 : 2 × 5

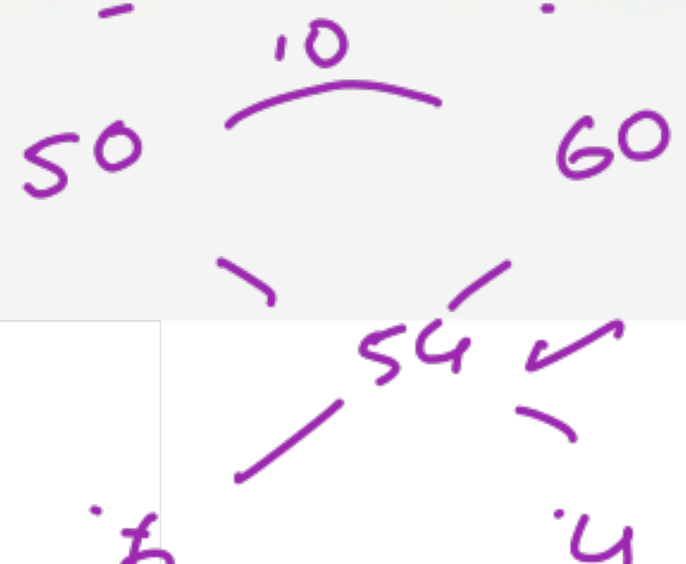
25

$= 40 \times \frac{25}{125} = 10$

40 + 10 = 50

30 kg of rice costing ₹50 per kg is mixed with 20 kg of rice costing ₹60 per kg. What is the average cost of the mixture per kg?

1. ₹54
2. ₹56
3. ₹52
4. ₹55



30 : 20

3 : 2

x - 50 : 4

60 - x : 6

$3x2 : 2x2 = 5x2$

$= 10$

The ratio of spirit and water in solutions in vessels A and B are 3 : 4 and 5 : 9, respectively. The contents of A and B are mixed in the ratio 2 : 3. What is the ratio of water and spirit in the resulting solution?

1. 43 : 27
2. 39 : 16
3. 8 : 13
4. 1 : 3

A

3 : 4 — 7 × 2

B

5 : 9 — 14 × 1

Spirit

1 × 5

6 × 5 — 5 × 5

30 — 25

27

2 : 3 — 5

Water

1 × 5

8 × 5 — 9 × 5

2 : 3 — 5

40 — 45

43 — 42

2 : 3

W : S

43 : 27