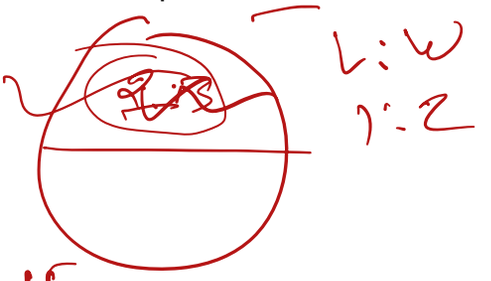
1) Ratio of Land: water on earth is 1:2 and ratio of Land: water in northern hemisphere is 2:3 find the ratio ef Land: water in southern hemisphere.?

A)4:11. B)5:9 C)3:7 5:11



L : W
1 : 2
10 : 20

northern
2 : 3
30 × 50%
15
L:6 W:9

5 → 11
1 → 3
2 → 6
3 → 9

L : W
10-6 20-9
4 : 11

2) On the whole surface of earth the ratio of land and water is 3:5. The land and water in northern hemisphere is 7:9. Then what is the ratio of land and water in southern hemisphe

A)6:7 B)511. C)9:2 D)3: 2

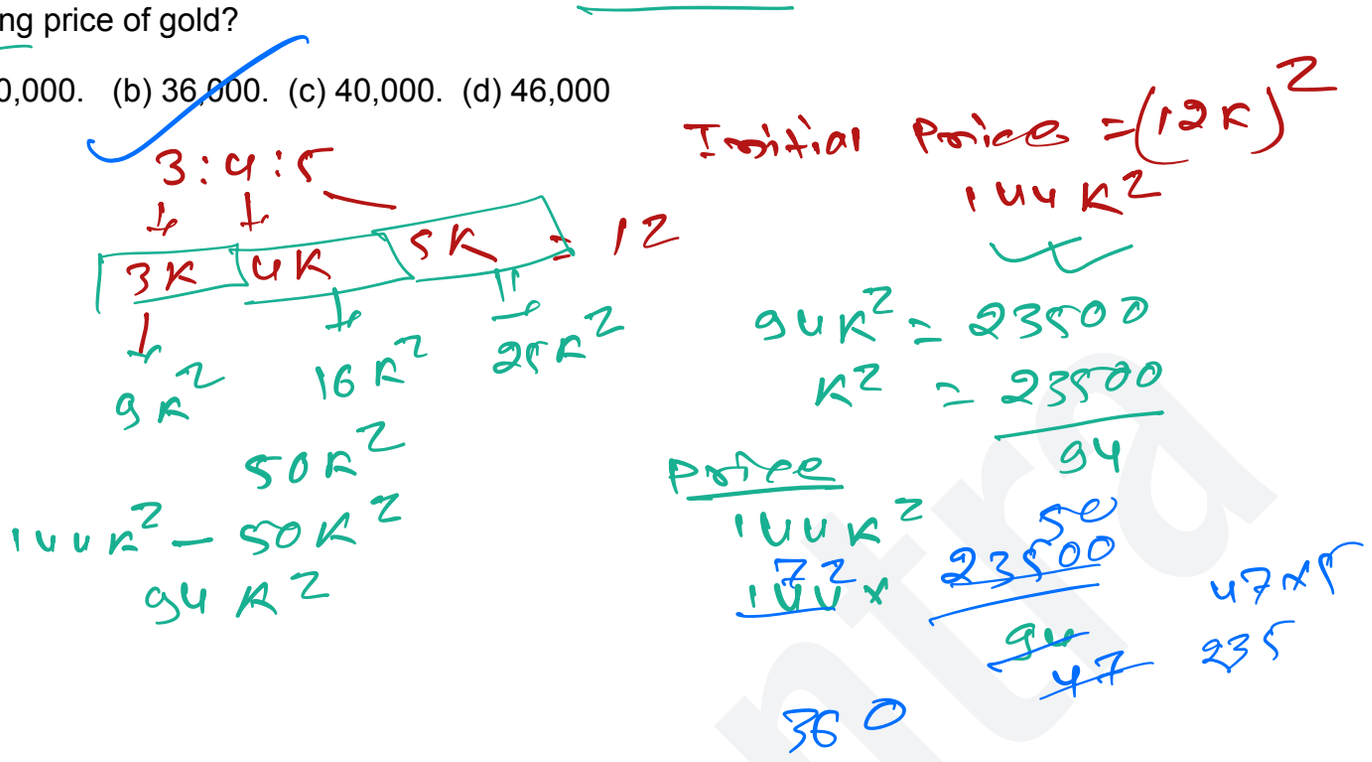
L : W
3 : 5 : 8 × 4
12 : 20 = 32

7 : 9 = 16
16
7 : 9

5 : 11

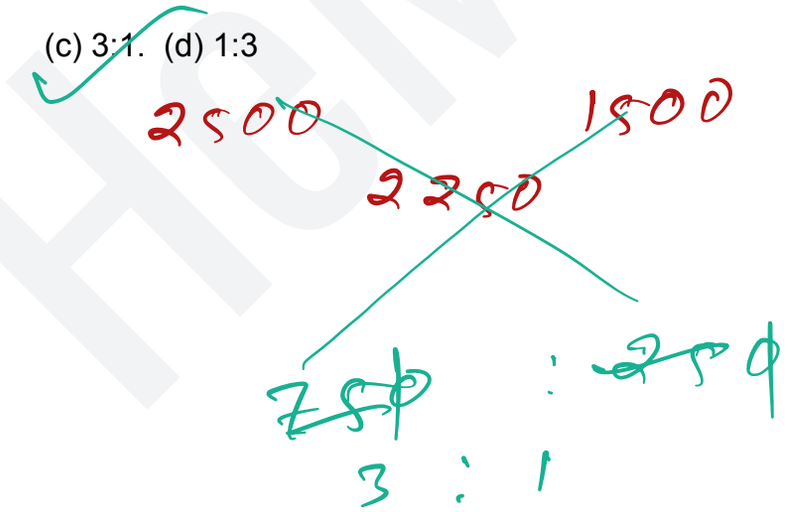
3) A gold broke into parts, the ratio of weight of three part is 3:4:5. The price of gold is directly proportional to its square weight. If there is loss of Rs23500 after breaking gold then what was the starting price of gold?

(a) 30,000. (b) 36,000. (c) 40,000. (d) 46,000



4) In what ratio should coffee powder costing Rs.2500 per kg be mixed with coffee powder costing Rs.1500 per kg so that the cost of the mixture is Rs.2250 per kg?

(a) 1:4. (b) 4:1. (c) 3:1. (d) 1:3



50 80

60

20 : 10

2 : 1

100

60 150

100

50 : 40

60 /Kg

AV AV

AV

$AV = \frac{SUM}{NO}$

NO. NO

P% P%

P%

S S

S

T T

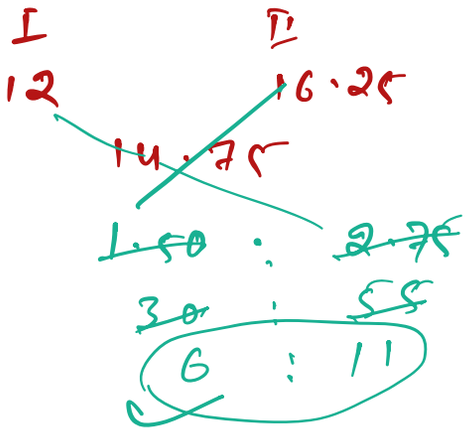
$S = \frac{D}{T}$

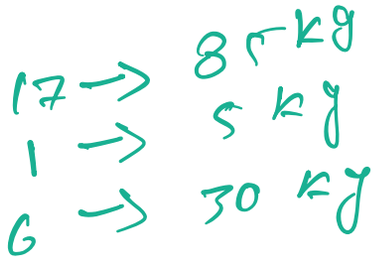
CP : CP

$P\% = \frac{P}{CP} \times 100$

5) A shopkeeper bought one type of rice at Rs. 12 per kg and other type at Rs.16.25 per kg. After mixing both types of rice he fixed the cost of mixture as Rs. 14.75 per Kg. If the total quantity of the rice be 85 kg, Find the quantity of first type of rice.

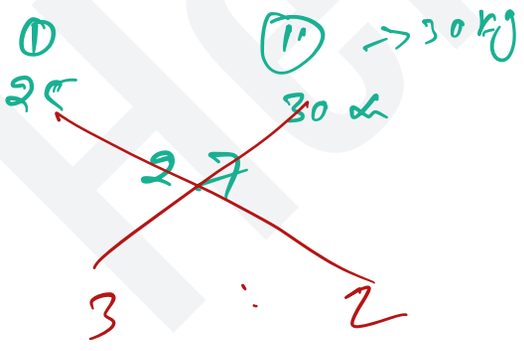
(a) 55 kg (b) 30 kg (c) 35 kg (d) 40 kg





6) How many kg of rice worth Rs.25 per kg must be mixed with 30 kg of rice worth Rs.30 per kg so that by selling the mixture at Rs.29.7 per kg, there is a gain of 10%?

(a) 25 kg. (b) 45 kg. (c) 60 kg. (d) 27 kg



2 → 30
1 → 15
3 → 45

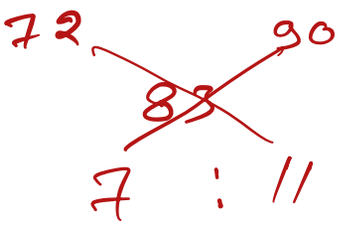
SP 29.7

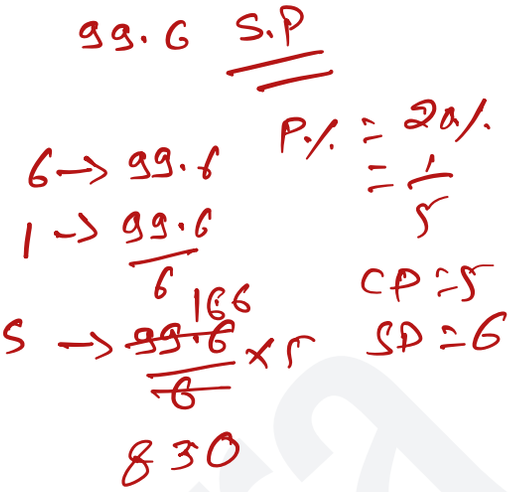
11 → 29.7
10 → 29.7 − 2.7

P : 10%
= 1/10
CP : 10
SP : 11

7) In what ratio must a grocer mix tea at Rs.72/kg, and Rs.90/kg, so that by selling the mixture at Rs.99.6/kg. He may gain 20% ?

(a) 2:3. (b) 7:11. (c) 3:7. (d) 13:19

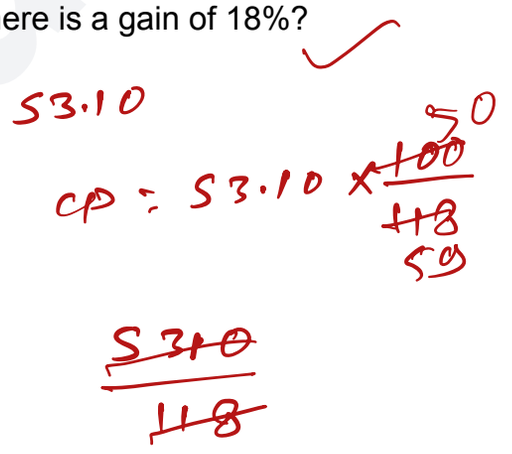




8) How many kg of rice costing Rs. 42 per kg should be mixed with 7 1/2 kg rice costing Rs. 50 per kg so that by selling the mixture at Rs. 53.10 per kg, there is a gain of 18%?

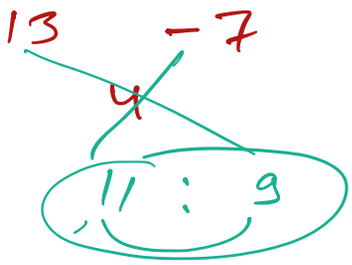
(a) 12 1/2. (b 10 1/2. (c) 8. (d) 9

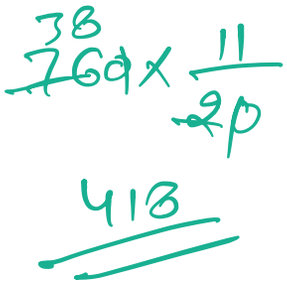
$\frac{15}{2} \times \frac{5}{3} = \frac{25}{2}$



9) A trader has 760 kg of rice, a part of which he sells at 13% profit and the rest at 7% loss. He gains 4% on the whole. How much was sold at 13% gain?

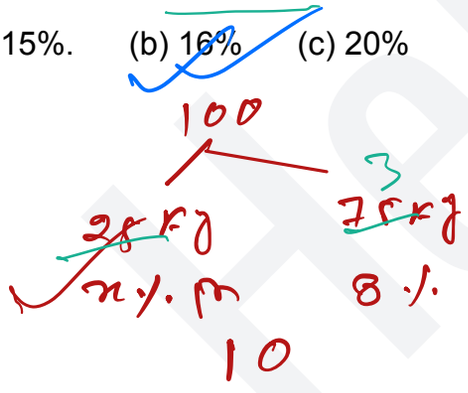
(a) 418kg. (b) 342kg (c) 380kg. (d) 437kg

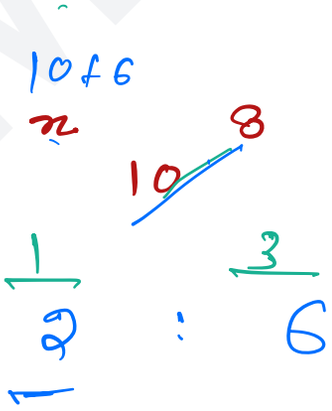




10)A shopkeeper has 100 kg of rice. He sells 25 kg at some profit and sell remaining part at 8% profit. If he earns 10% profit on whole transaction then find at what % profit he sells 25kg rice .

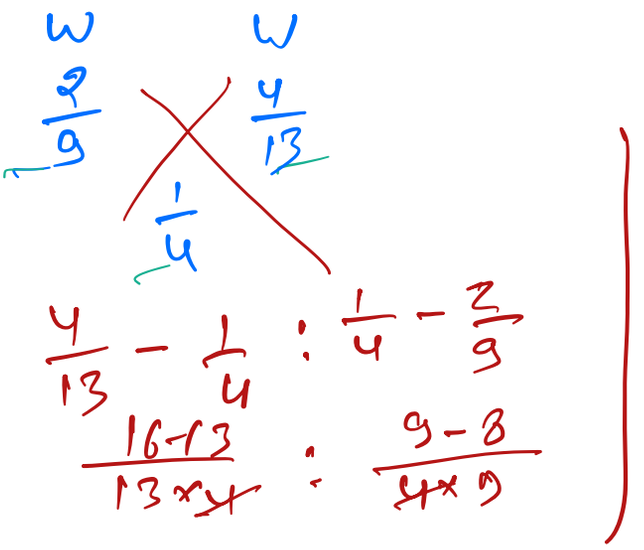
(a) 15%. (b) 16% (c) 20% (d) 18%

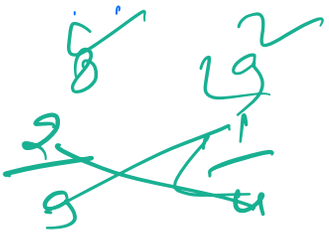




11) Bottie 1 contains a mixture of milk and water in 7: 2 ratio and Bottle 2 contains a mixture of milk and water in 9: 4 ratio. In what ratio of volumes should the liquids in Bottle 1 and Bottie 2 be combined to obtain a mixture of milk and water in 3:1 ratio?

(a) 27:14 (b) 27:13. (c) 27: 16 (d) 27: 18



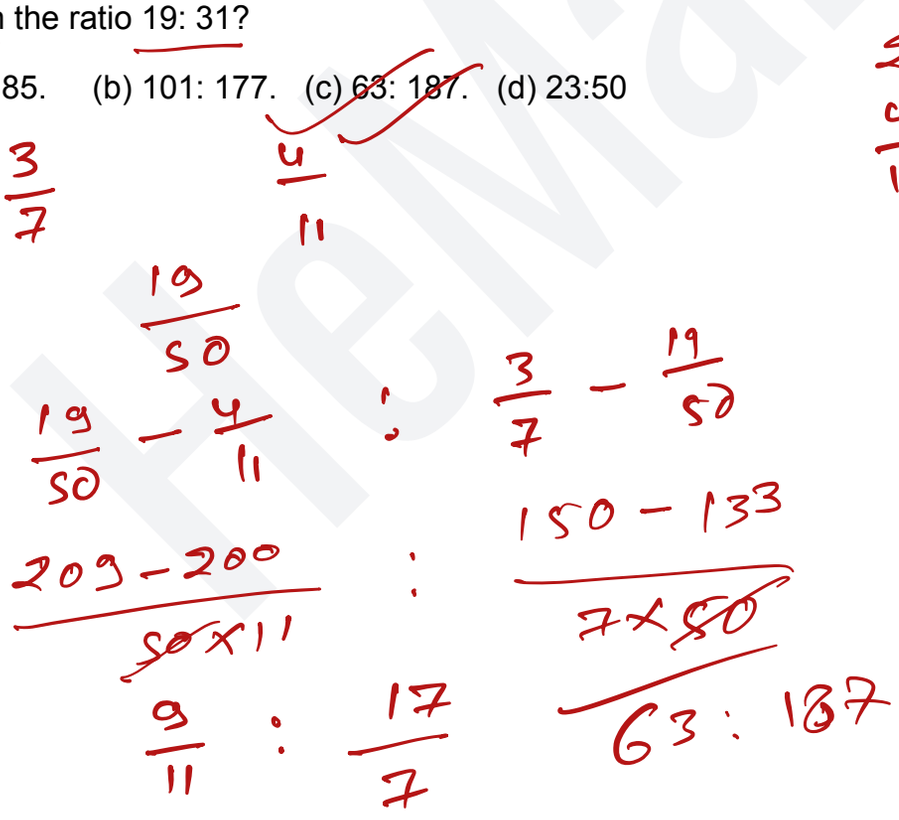


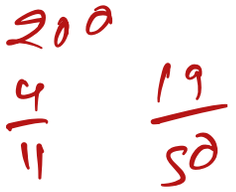
3/13 : 1/9

27 : 13

12) Vessels A and B contain mixtures of milk and water in the ratios 4:3 and 7:4 respectively. In what ratio should quantities of mixture be taken from A and B to form a mixture in which water and milk is in the ratio 19: 31?

(a) 62: 185. (b) 101: 177. (c) 63: 187. (d) 23:50





13) Two vessels A and B contain milk and water mixed in the ratio 8: 5 and 5: 2 respectively. The ratio in which these two mixtures be mixed to get a new mixture containing (69 3/13% ?

(a) 4:9. (b) 2:7. (c) 3:5. (d) 4:7

$\frac{8}{13}$ $\frac{5}{7}$

$\frac{9}{13}$

$69\frac{3}{13}\% = \frac{9}{13}$

$\frac{5}{7} - \frac{9}{13} : \frac{9}{13} - \frac{8}{13}$

$\frac{65-63}{7\times 13} : \frac{1}{13}$

$2 : 7$

14)A and B are solutions of acid and water. The ratios of water and acid in A and B are 4:5 and 1:2, respectively. If x litres of A is mixed with y litres of B, then the ratio of water and acid in the mixture becomes 8:13. What is x:y?

(a) 5:6. (b) 2:5. (c) 3:4. (d) 2:3

$\frac{4}{9}$ $\frac{1}{3}$

$\frac{8}{21}$

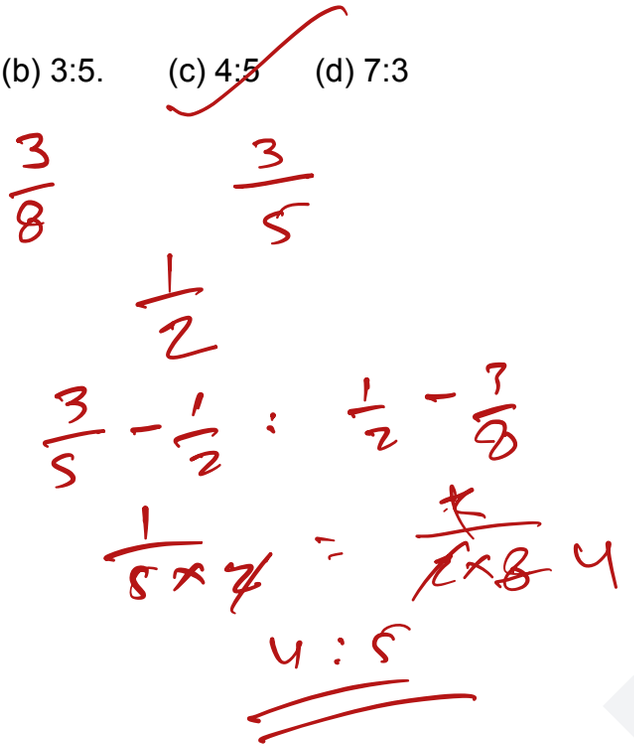
$\frac{8}{21} - \frac{1}{3} : \frac{4}{9} - \frac{8}{21}$

$\frac{24-21}{21\times 3} : \frac{84-72}{9\times 21}$

$\frac{3}{63} : \frac{12}{189}$

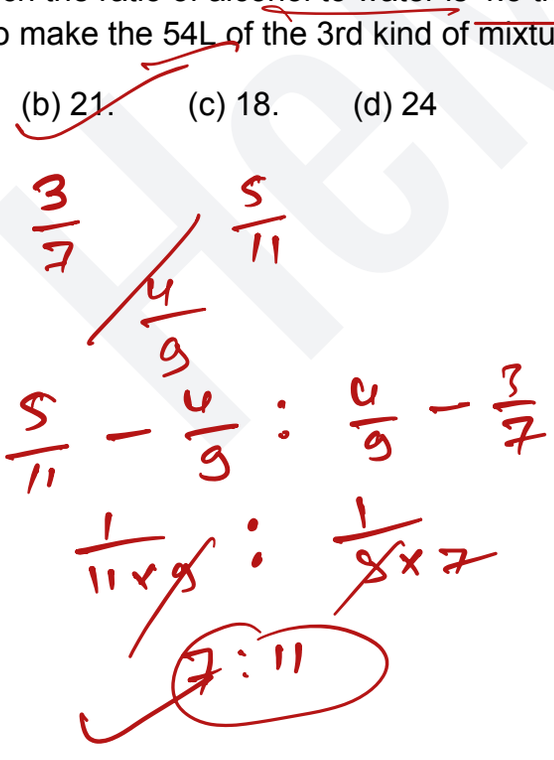
15). Two vessels A and B contain milk and water mixed in the ratio 5: 3 and 2: 3. When these mixture are mixed to form a new mixture containing half milk and half water, they must be taken in the ratio

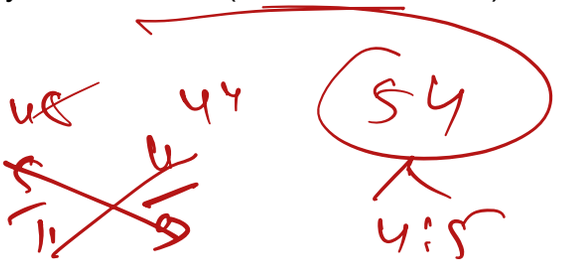
(a) 2:5. (b) 3:5. (c) 4:5 (d) 7:3

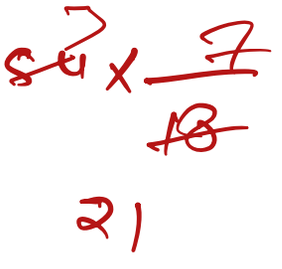


16). A person purchase 2 different kinds of alcohol. In the Ist mixture the ratio of alcohol to water is 3:4 and in the 2nd mixture is 5:6. If he mixes the two given mixtures and makes a third mixture of 54L in which the ratio of alcohol to water is 4:5 the quantity of Ist mixture (whose ratio is 3:4) is required to make the 54L of the 3rd kind of mixture is?

(a) 16. (b) 21. (c) 18. (d) 24

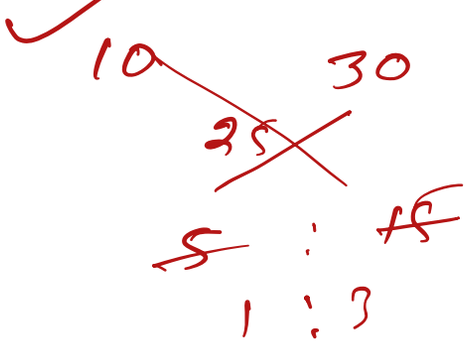






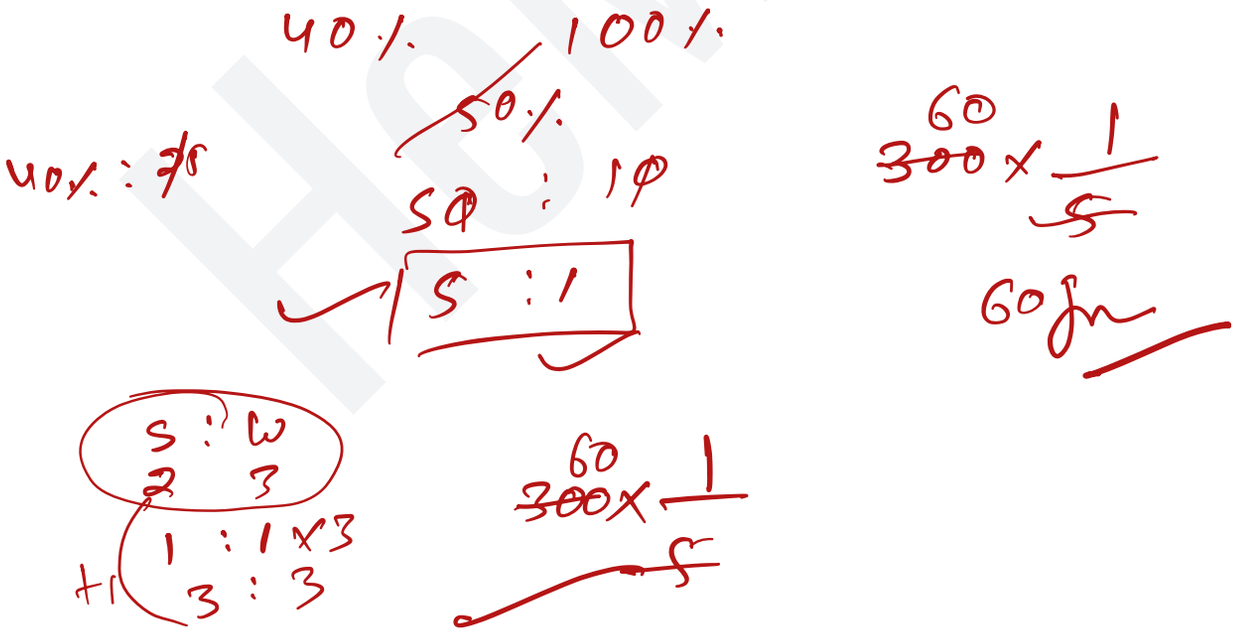
17) Solution A contains 10% acid and sol B contains 30% acid. In what ratio should sol A be mixed with sol B to obtain a mixture with 25% acid?

(a) 1:2. (b) 2:1. (c) 1:3. (d) 2:1



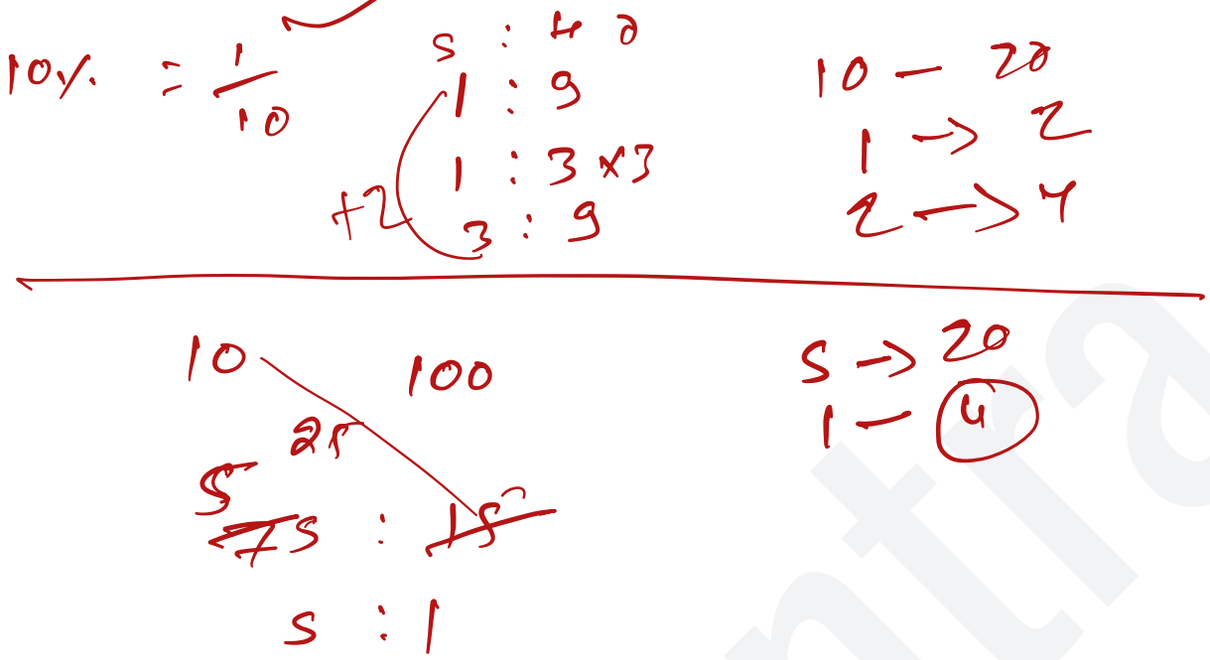
18). 300 grams of sugar solution has 40% of sugar in it. How much sugar should be added to make to 50% in the solution?

(a) 40 gram. (b) 10 gram. (c) 60 gram. (d) 80 gram



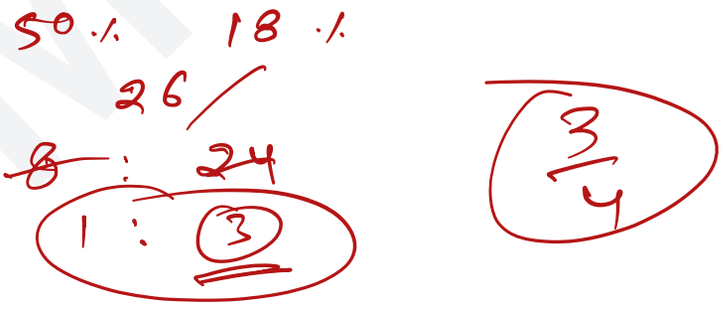
19) A container contains 20 L mixture in which there is 10% sulphuric acid. Find the quantity of sulphuric acid to be added in it to make the solution containing 25% sulphuric acid.

(a) 3 L (b) 5 L (c) 4 L (d) 2 L



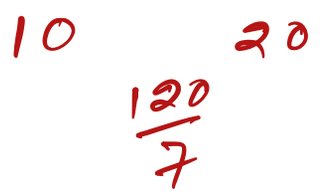
20) A bottle full of whisky contains 50% alcohol. A part of this whisky is replaced by another containing 18% alcohol and the percentage of alcohol was found to be 26%. The quantity of whisky replaced is:

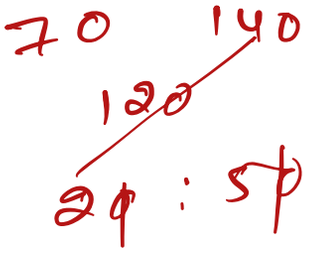
A)3/4. B)1/3. C)5/8. D)1/2



21) . If a dairy mixes cow's milk which contains 10% fat with buffalo's milk which contains 20% fat, then the resulting mixture has (120/7)% of fat. What ratio was the cow's milk mixed with buffalo's milk?

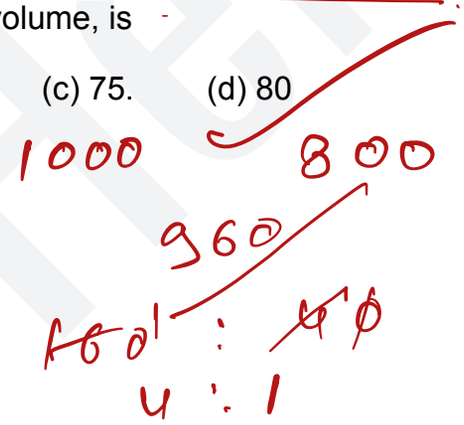
(a) 2:5. (b) 1:5. (c) 2:3. (d)2:1

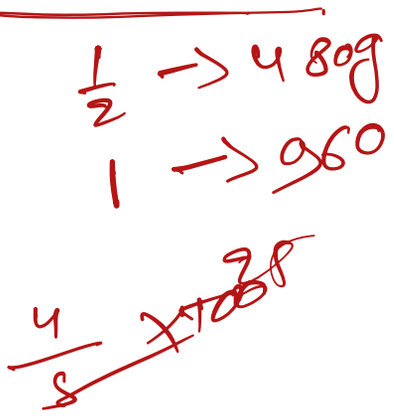




22) . A chemist mixes two liquids 1 and 2. One litre of liquid 1 weighs 1 kg and one litre of liquid 2 weights 800 gm. If half litre of the mixture weights 480 gm, then the percentage of liquid 1 in the mixture, in terms of volume, is

(a) 70. (b) 85. (c) 75. (d) 80

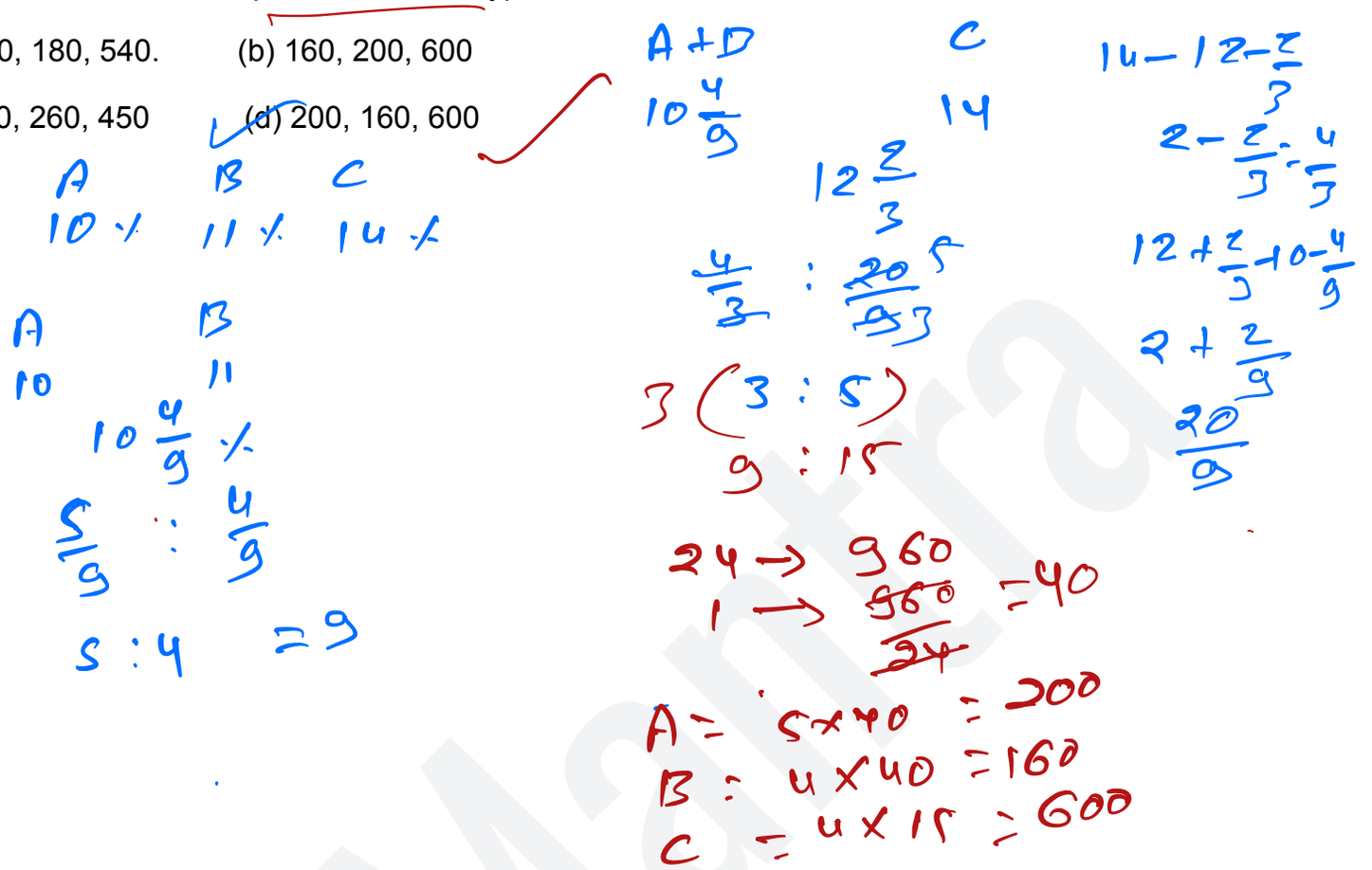




23) A man has 960 pens of three types such that he earns a profit of 10%, 11% and 14% respectively. On each type he earns profit of 10 4/9 %in first two types and 12 2/3% overall profit on all types. Find the no. of pens in all three type?

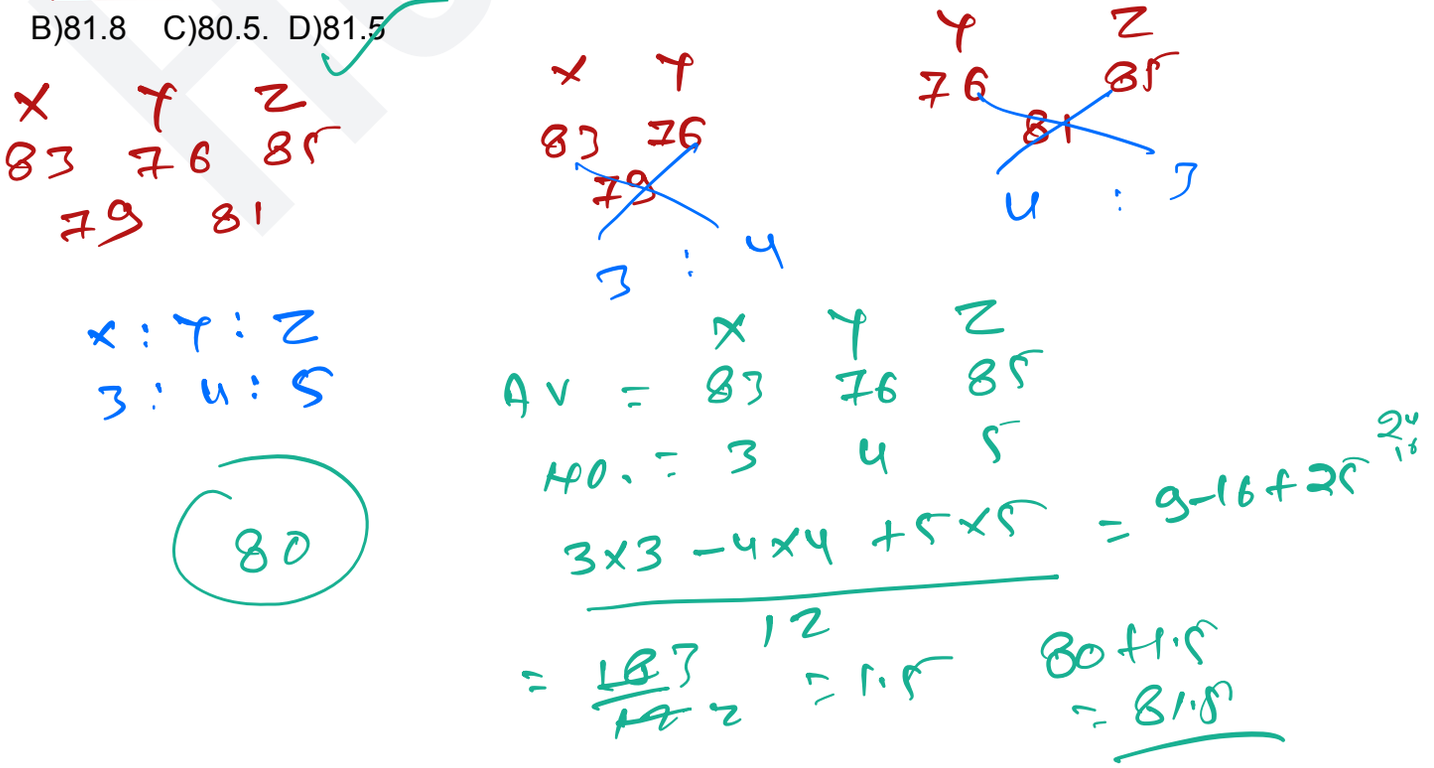
(a) 240, 180, 540. (b) 160, 200, 600

(c) 250, 260, 450 (d) 200, 160, 600



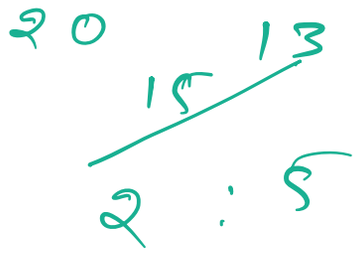
24) Three classes: X, Y and Z, take a test. The average score in class X is 83. The average score in class Y is 76. The average score in class Z is 85. The average score of all students in classes X and Y together is 79. The average score of all students in classes Y and Z together is 81. What is the average score for all the three classes, taken together?

A)80.2 B)81.8 C)80.5. D)81.5



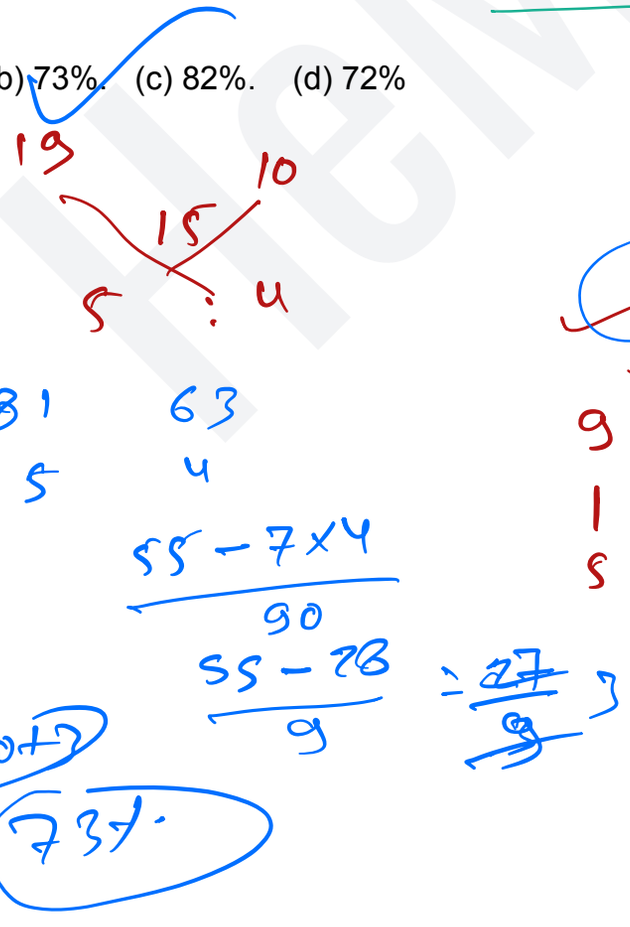
25) In an alloy 80% copper and rest is tin. in another alloy copper 85% and 13% tin. Both alloys are mixed in which ratio such that % of tin becomes 15% in resultant mixture.

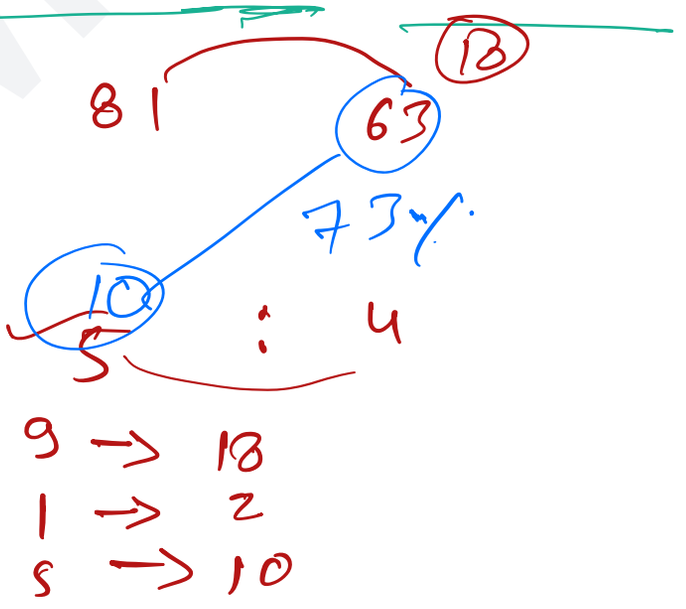
(a) 5:2. (b) 2:3. (c) 2:5. d) 3:2



26) In a alloy 81% copper and 19% tin. In another alloy 63% copper, 10% tin and remaining are impurities. Both alloys are mixed such that then % of tin becomes 15%. Find the % of copper in new mixture.

(a) 85% (b) 73%. (c) 82%. (d) 72%



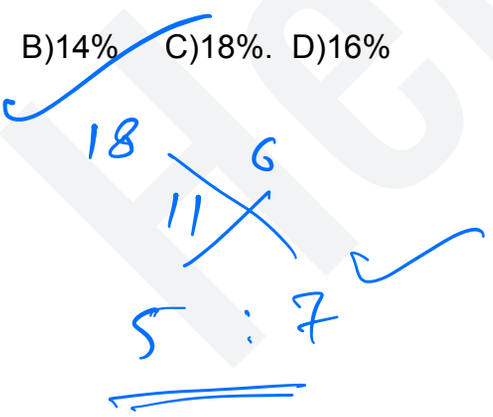


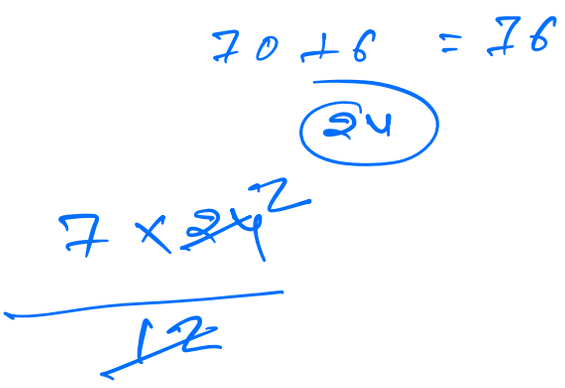
27) . An Alloy A of gold and silver contains 89% gold and 11% silver a second alloy B of gold and silver contains 75% gold and 9% silver and rest part is impurities, an alloy C is made by mixing alloy A and alloy B and it contains 100% silver. Find gold % in C?

(a) 84%. (b) 85%. (c) 85.5%. (d) 86%

28) . In a alloy 82% copper and 18% tin another alloy 70% copper, 6% tin and remaining are impurities. Both alloys are mixed such that then the % tin in new mixture becomes 11%. Find the % of impurities in new mixture?

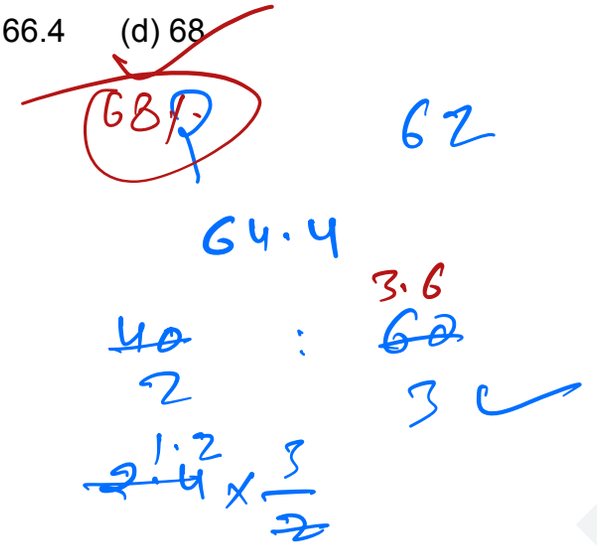
A)12%. B)14% C)18%. D)16%





29) In a class of 50 students, 40% are girls. The average marks of the whole class are 64.4 and the average of the boys' marks is 62. What is the average marks of the girls?

(a) 67 (b) 66.8. (c) 66.4 (d) 68



30) A car travel 20 kmph for 30 min and at x kmph for 45 min. If the average speed of the car for entire journey is 14 kmph, find the value of x.

(a) 10 kmph. (b) 15 kmph. (c) 12 kmph. (d) 20 kmph