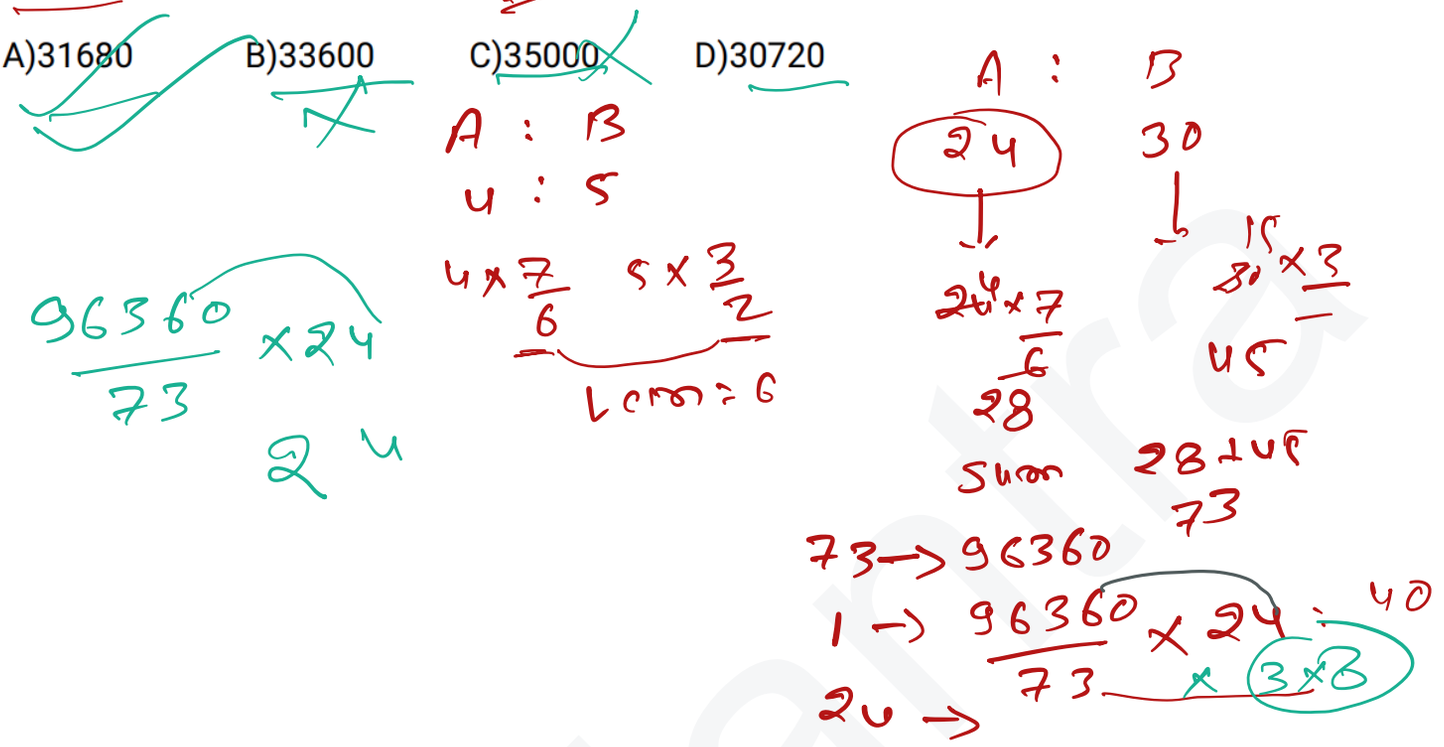
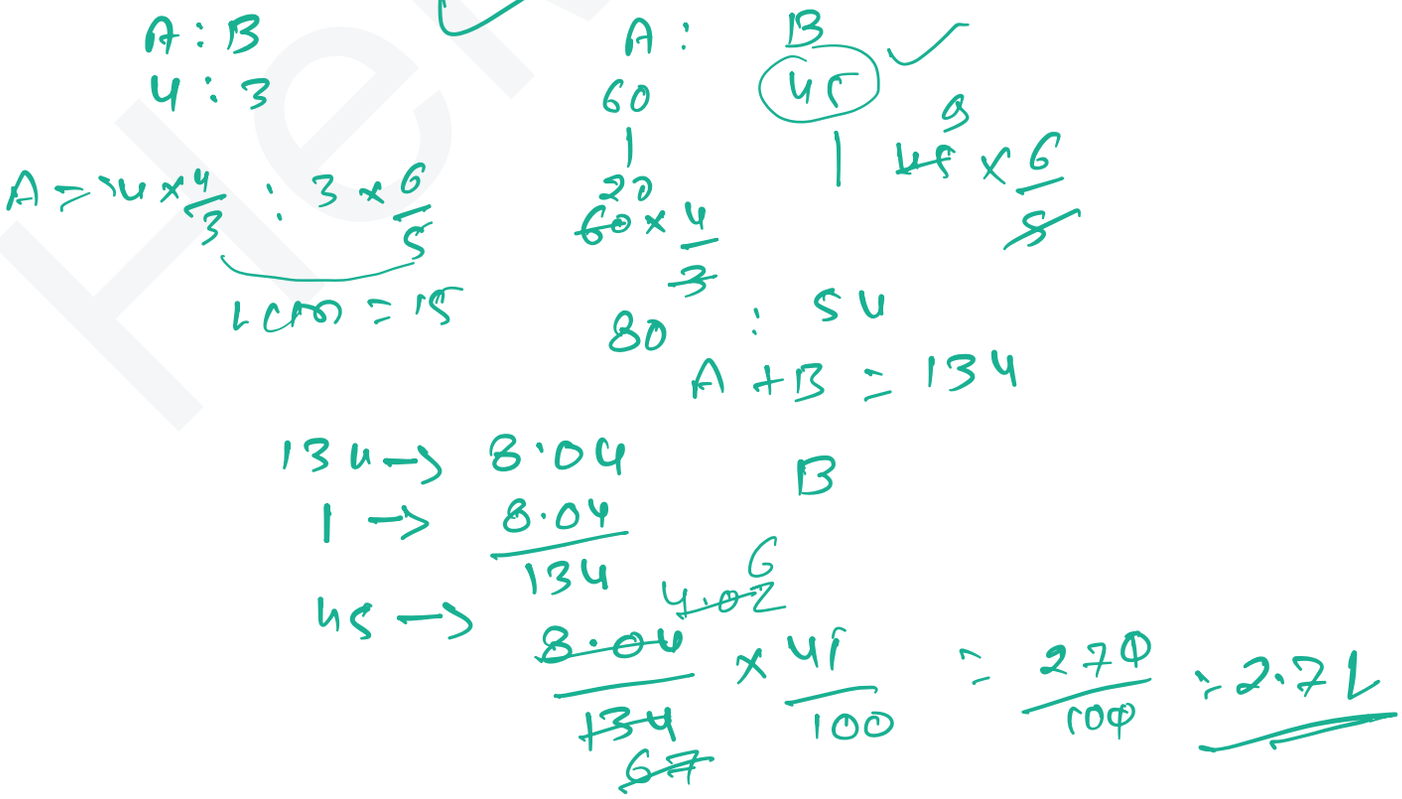
1) The ratio of incomes of A and B last year was 4:5. The ratio of their own incomes of last year and this year are 6:7 and 2:3 respectively. If the total sum of their present incomes is Rs. 96360, find the last year income ofA?

A)31680 B)33600 C)35000 D)30720



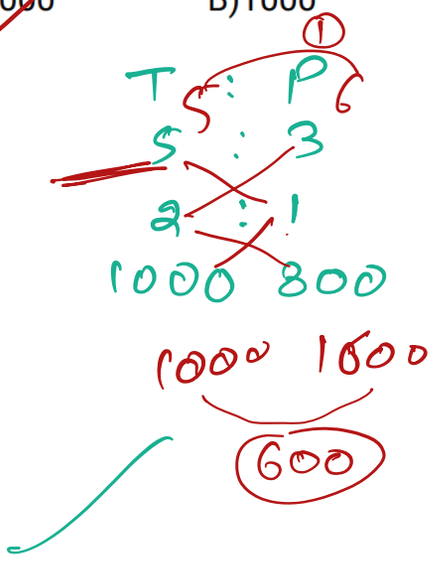
2) The ratio of the incomes of A and B last year was 4:3, respectively. The ratios of their individual incomes of the last year and the present year are 3:4 and 5:6, respectively if their total income for the present year is Rs.8.04 lakh then the income of B last year was

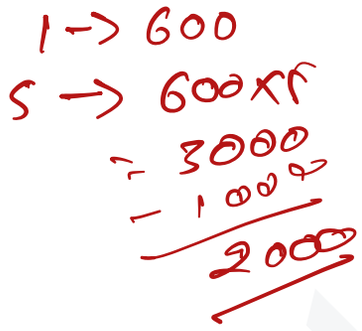
A)Rs.3.6 lakh. B)Rs 2.4 lakh C)Rs 2.7 lakh. D)Rs 2.8 lakh

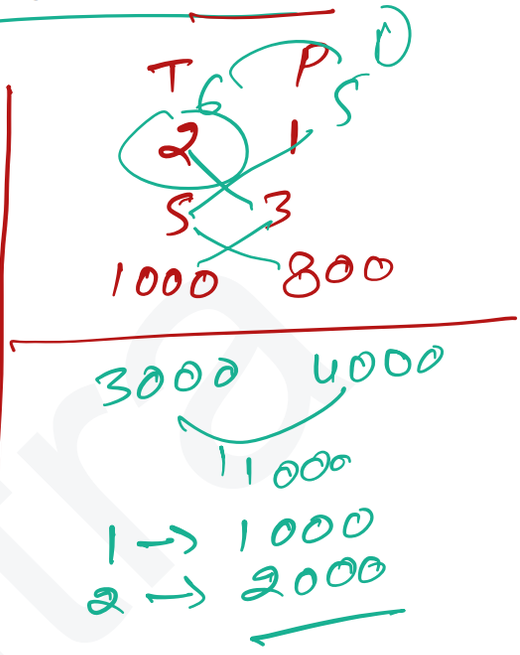


3) Before a battle the ratio of tanks to planes in an army was 5: 3. During the war 1000 tanks were destroyed and 800 planes were destroyed. The ratio of tanks to planes became 2: 1. What is the number of tanks after the war ?

A)2000 B)1000 c)3000 D)4000

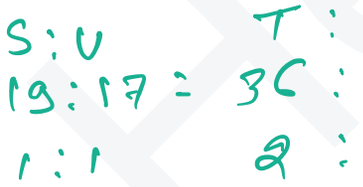


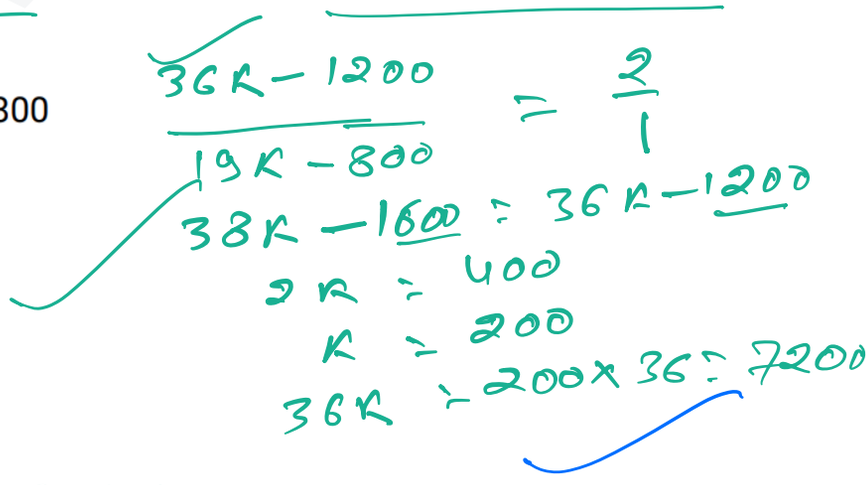


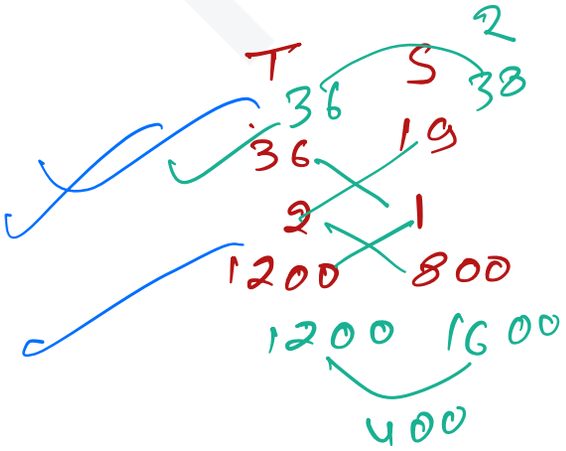


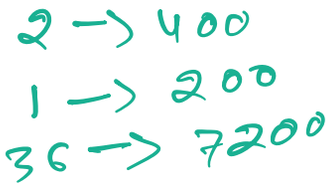
4) How many job applicants had applied if the ratio of selected to unselected was 19: 17? If 1,200 less had applied and 800 less selected, then the ratio of selected to unselected would have been 1: 1

A)6000 B)7200 C)8400 D)4800



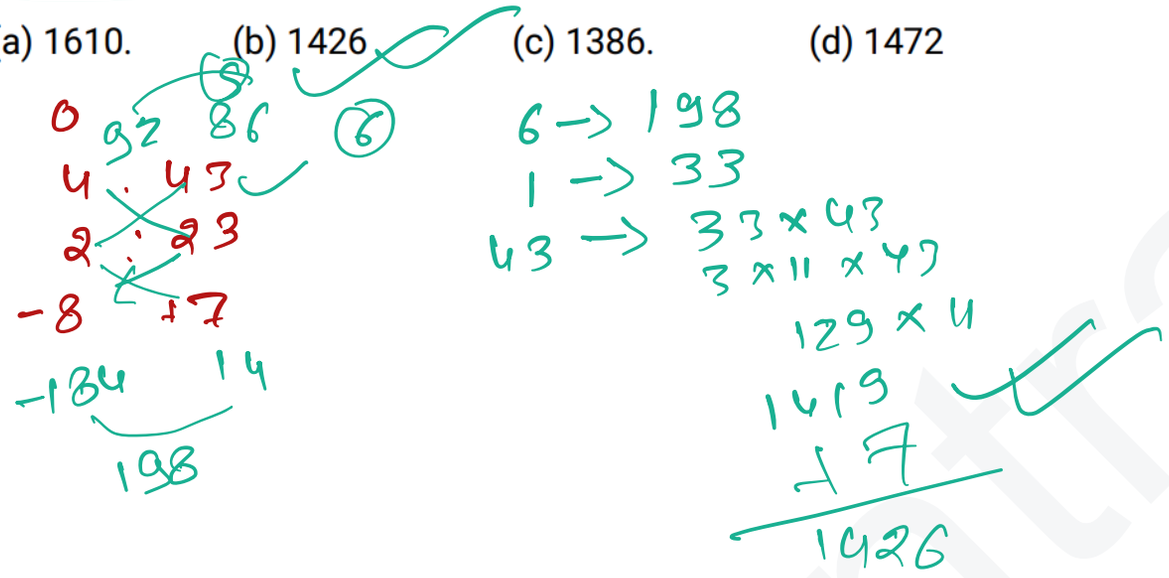






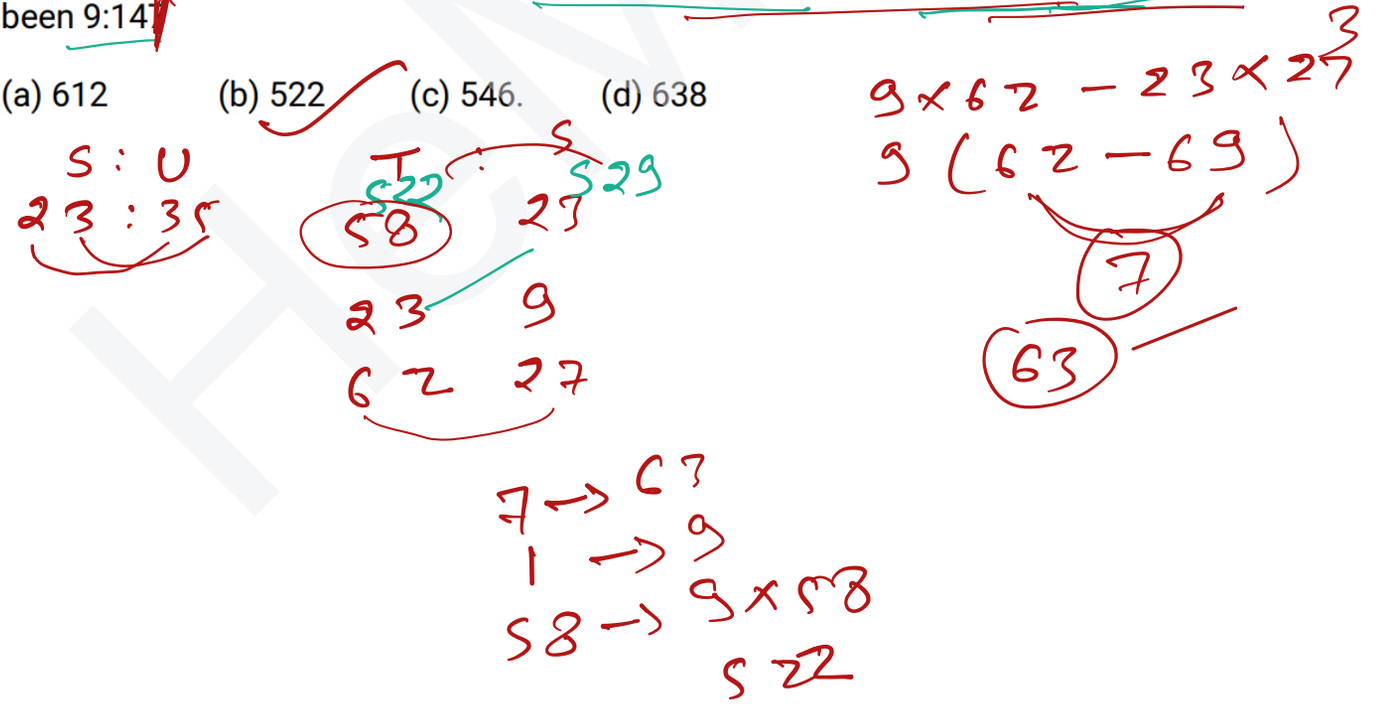
5) In a regiment the ratio between the officers to soldiers was 4:43 in a battle 8 officers martyred and 7 soldiers join the regiment and the ratio becomes 2:23 find the number of soldiers after the battle?

(a) 1610. (b) 1426 (c) 1386. (d) 1472



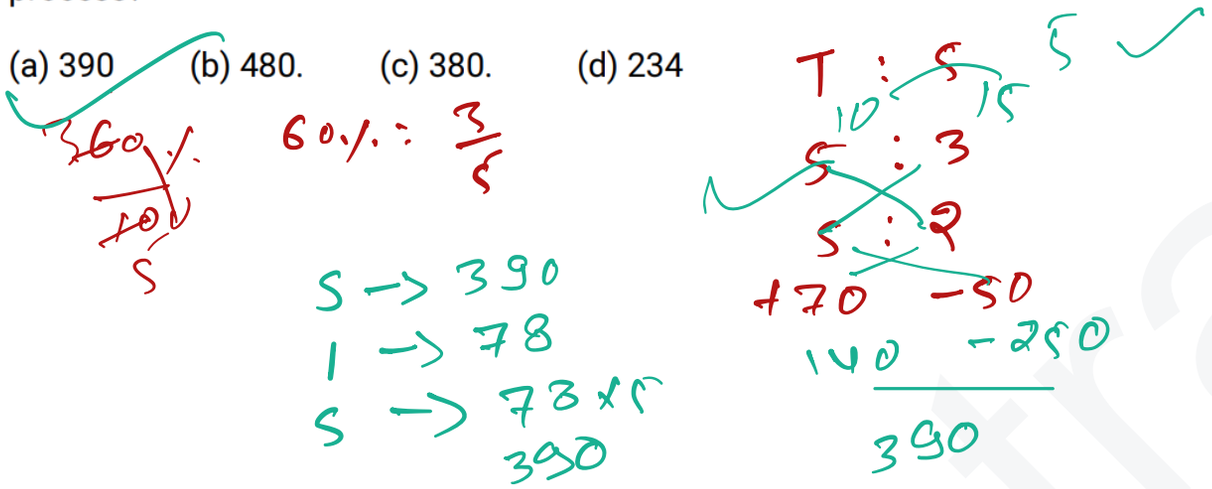
6) What is the number of candidates who had applied if the ratio of selected to unselected was 23:35. If 62 less had applied and 27 less selected the ratio of selected to unselected would have been 9:14

(a) 612 (b) 522 (c) 546. (d) 638



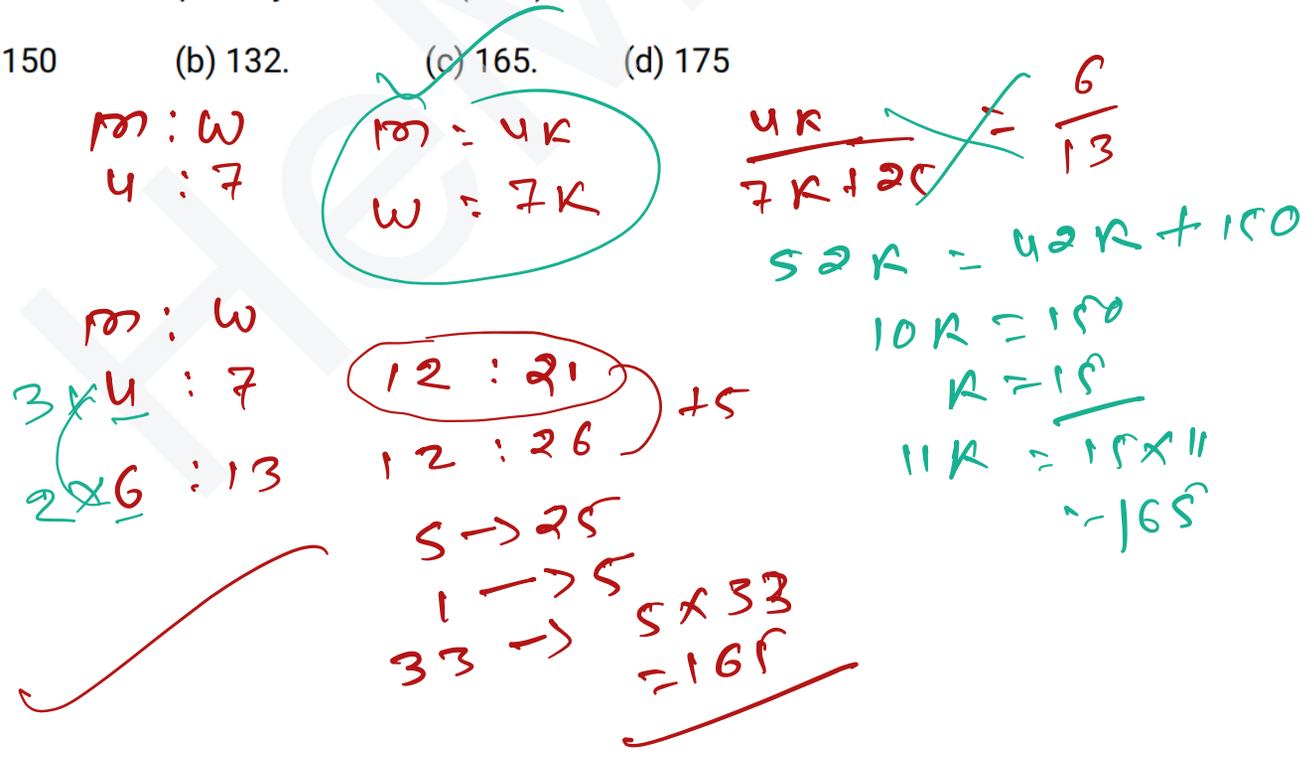
7) In an army selection the % of selected candidate was 60%. If 70 more had applied and 50 less selected then the % of unselected candidate is 60%. How many candidates had applied for the process?

(a) 390 (b) 480. (c) 380. (d) 234



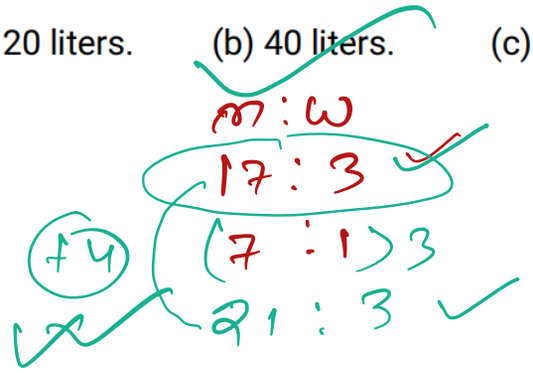
8). The ratio of milk and water in a vessel is 4:7. If 25ltr water is added then ratio becomes 6:13. Find the initial quantity of mixture (in ltr)?

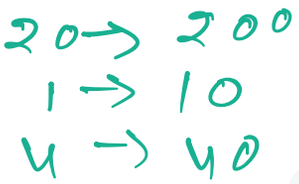
(a) 150 (b) 132. (c) 165. (d) 175



9) 200 liters of a mixture contains milk and water in the ratio 17: 3. After the addition of some more milk to it, the ratio of milk to water in the resulting mixture becomes 7: 1. The quantity of milk added to it was?

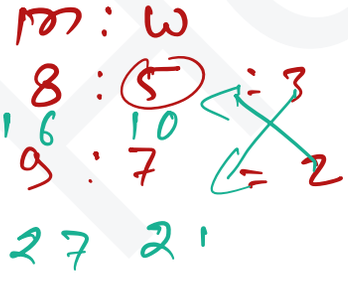
(a) 20 liters. (b) 40 liters. (c) 60 liters. (d) 80 liters

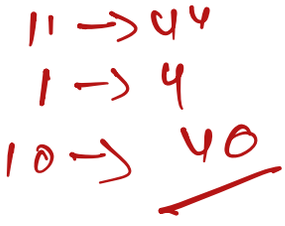




10) The ratio of milk and water in a vessel is 8:5. If we added 441tr milk and 441tr water then quantity of milk becomes 28.56% more than water. Find the initial quantity of water?

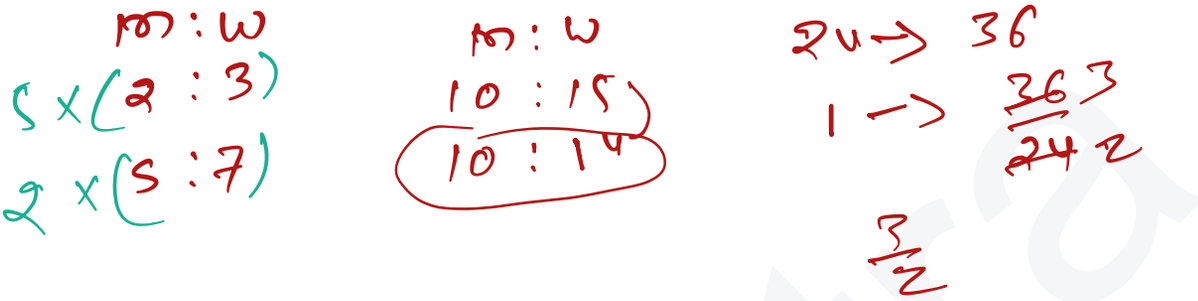
(a) 481tr. (b) 45ltr. (c) 40ltr (d) 60ltr





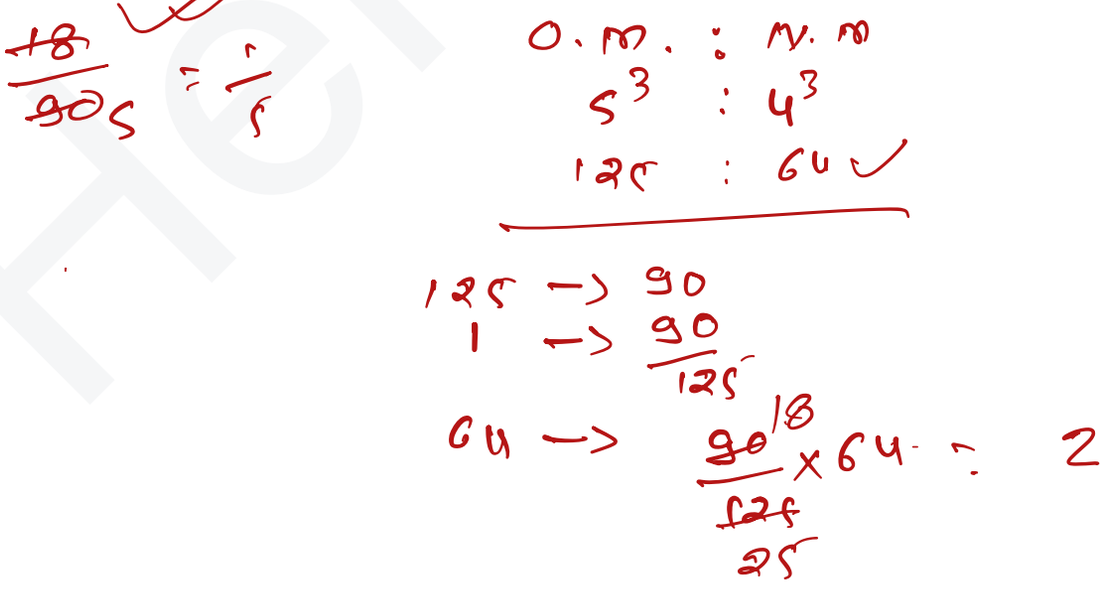
11) The ratio of milk and water in a vessel is 2:3 by chemical process if we extract some water then ratio becomes 5:7 and quantity of mixture reduced to 36ltr, then find how much quantity of water was extracted?

(a) 1ltr. (b) 1.5ltr. (c) 1.25ltr. . (d)1.15ltr



12) A vessel is full of 90ltr milk, 18ltr milk is taken out and replaced by water and again this process is repeated 2 times, the amount of milk left after the 3rd replacement is?

(a) 11.52ltr. (b) 46.081tr. (c) 23.041tr. (d) 69.121tr



13) . A vessel full of 1600ltr milk. A person draws out 25% of milk from the vessel and replaced with water. He has repeated the same process 2 times more. Find the final amount of milk in the vessel?

(a) 675L. (b) 750L. (C) 800L. d) 1200L

25% :- 1/4

0.m : 1m

$(4)^3$ $(3)^3$

64 : 27

64 → 1600

1 → 1600/64 × 27

675L

14) A jar is filled with milk. A person replaces 25% of milk with water. He repeats the same process 5 times and as a result there is 1458ml of milk left in the jar. The remaining part of jar is filled with water. The initial quantity of milk in the jar was?

(a) 4.096L. (b) 6.1441. (c) 5.12L. (d) 9.216L

25% :- 1/4

$4^5 : 3^5$

1024 : 243

64 × 4 = 256 × 4 = 1024

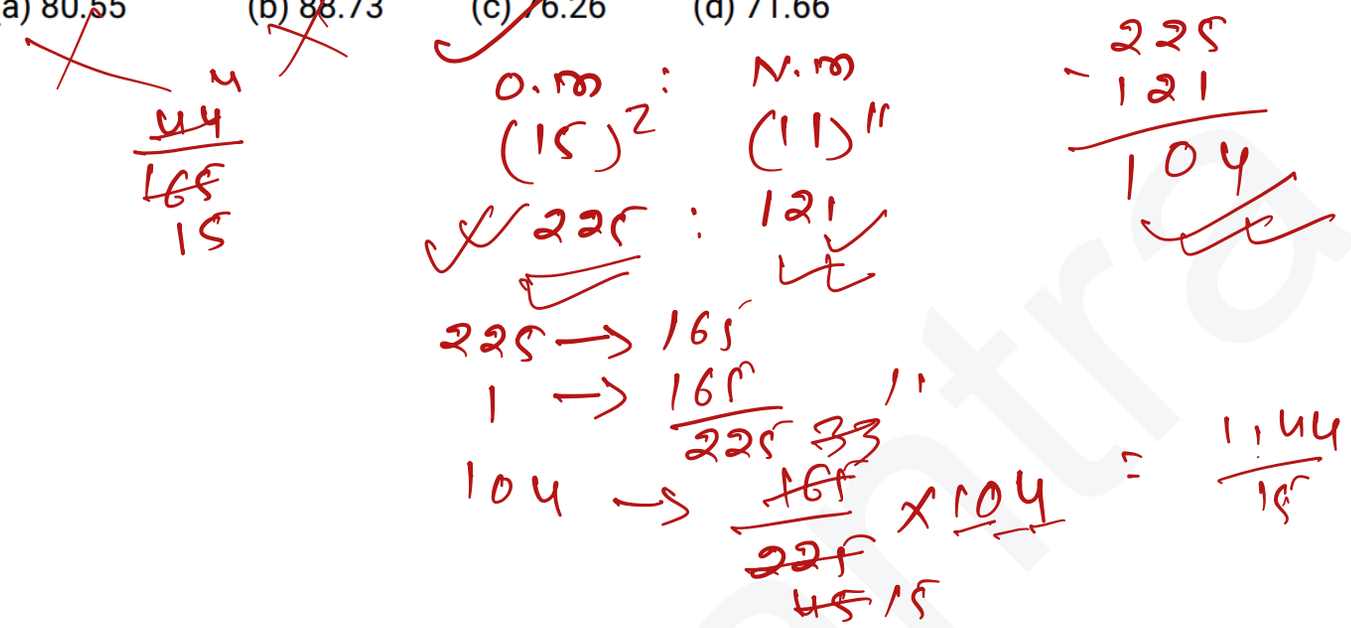
243

243 → 1458

1024 → 1458/243 × 1024

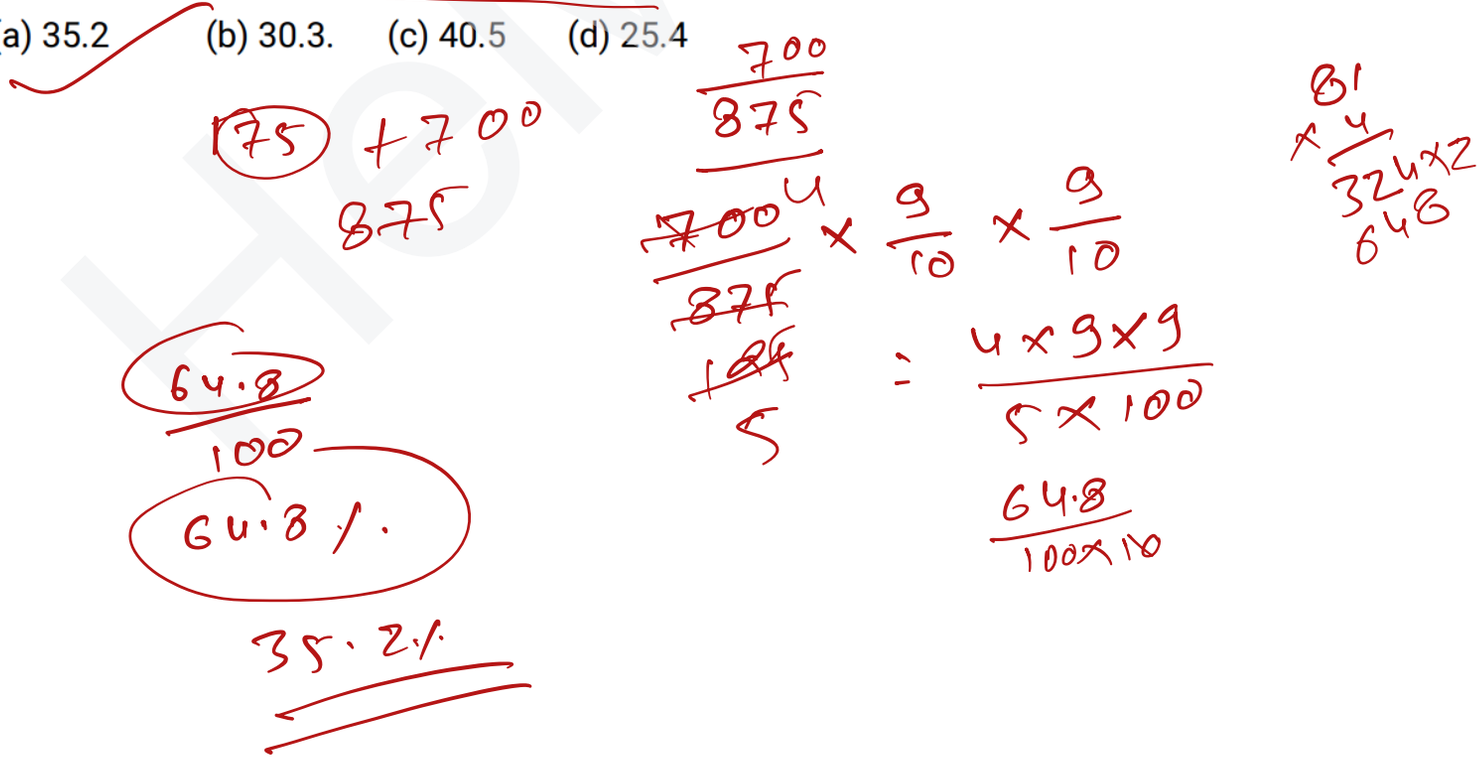
15) A drum contains 165 litres of ethanol. 44 litres of this liquid is removed and replaced with water. 44 litres of this mixture is again removed and replaced with water. How much water (in litres) is present in this drum now?

(a) 80.55 (b) 88.73 (c) 76.26 (d) 71.66



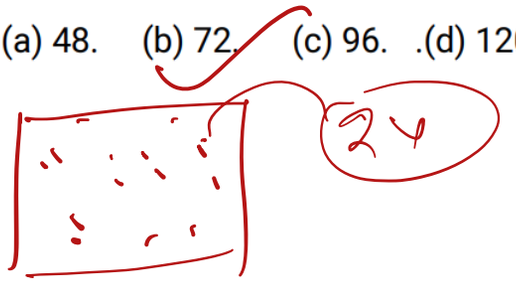
16) A jar contains a mixture of 175 ml water and 700 ml alcohol. Rohit takes out 10% of the mixture and substitutes it by water of the same amount. The process is repeated once again. The percentage of water in the mixture is now ?

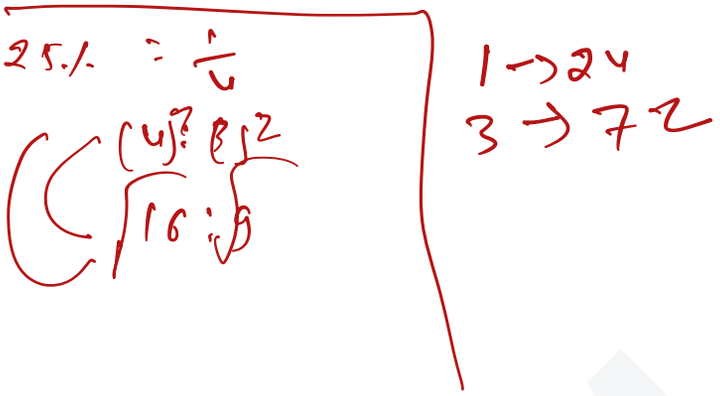
(a) 35.2 (b) 30.3. (c) 40.5 (d) 25.4

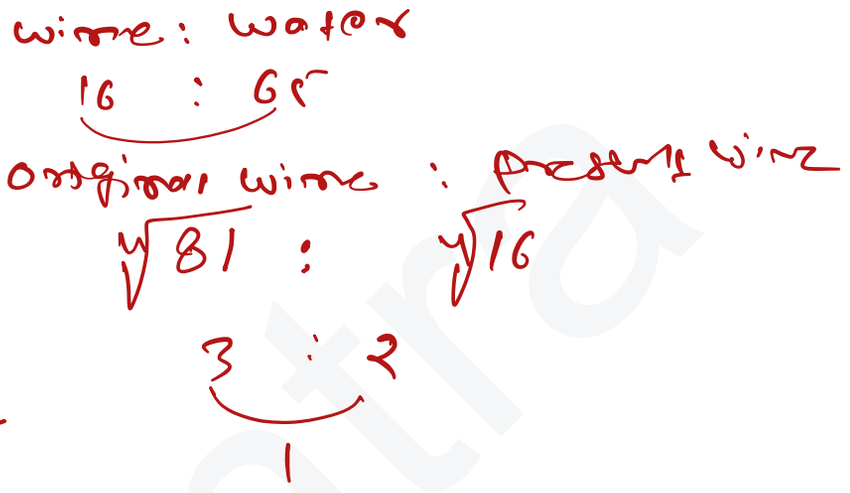


17) . 24 liters are drawn from a vessel full of wine, then filled with water. This operation is performed 3 times more. The ratio of quantity of wine now left in vessel to that of water is 16: 65. How much wine did vessel hold initially?

(a) 48. (b) 72. (c) 96. .(d) 120

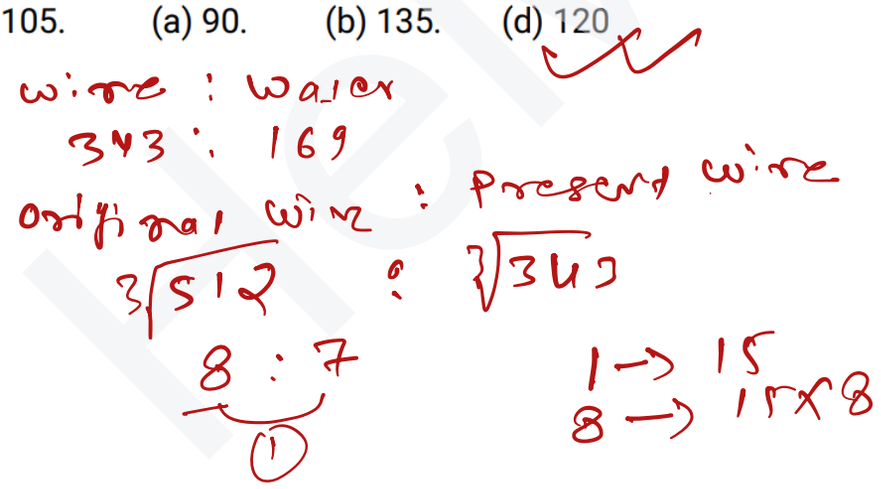






18) From a container of wine, a thief has stolen 15 lit of wine and replaced it with same quantity of water. He again, repeated the same process. Thus in 3 attempts, ratio of wine and water becomes 343: 169, Initial amount of wine.

(c) 105. (a) 90. (b) 135. (d) 120



19) A vessel is full of vinegar. 35L of vinegar is taken out & replaced by water. This process is repeated three more times. Find the final amount of vinegar in the vessel if at the end the ratio of vinegar and water becomes 625:671.

(a) 210L. (b) 70.6L. (c) 175.6L (d) 101.27L

V : W
625 : 671

I.V : P.V.
1296 : 625
$\sqrt[4]{(6)^4} : \sqrt[4]{(5)^4}$
6 : 5
1 → 35
6 → 6 × 35
210

V : P.V
1296 : 625

1296 → 210
1 → 210/1296
625 → 210/1296 × 625
35 × 625 / 216
7 × 3125 / 216 = 21875/216

20) From a cask filled with wine, 108.75 litres are first drawn and replaced with water. From this mixture 87 litres are drawn and replaced with water. The ratio of wine to water in the cask is now 3:2. How many litres of wine did the cask initially hold?

(a) 522. (b) 348. (c) 470. (d) 435

I.B.
W : Water
3 : 2 = 5

Final Q / Initial Q = $(1-\frac{x}{C})(1-\frac{y}{C})$

$\frac{3}{5} = (1-\frac{108.75}{x})(1-\frac{87}{x})$

$\frac{3}{5} = (1-\frac{108.75}{435})(1-\frac{87}{435})$

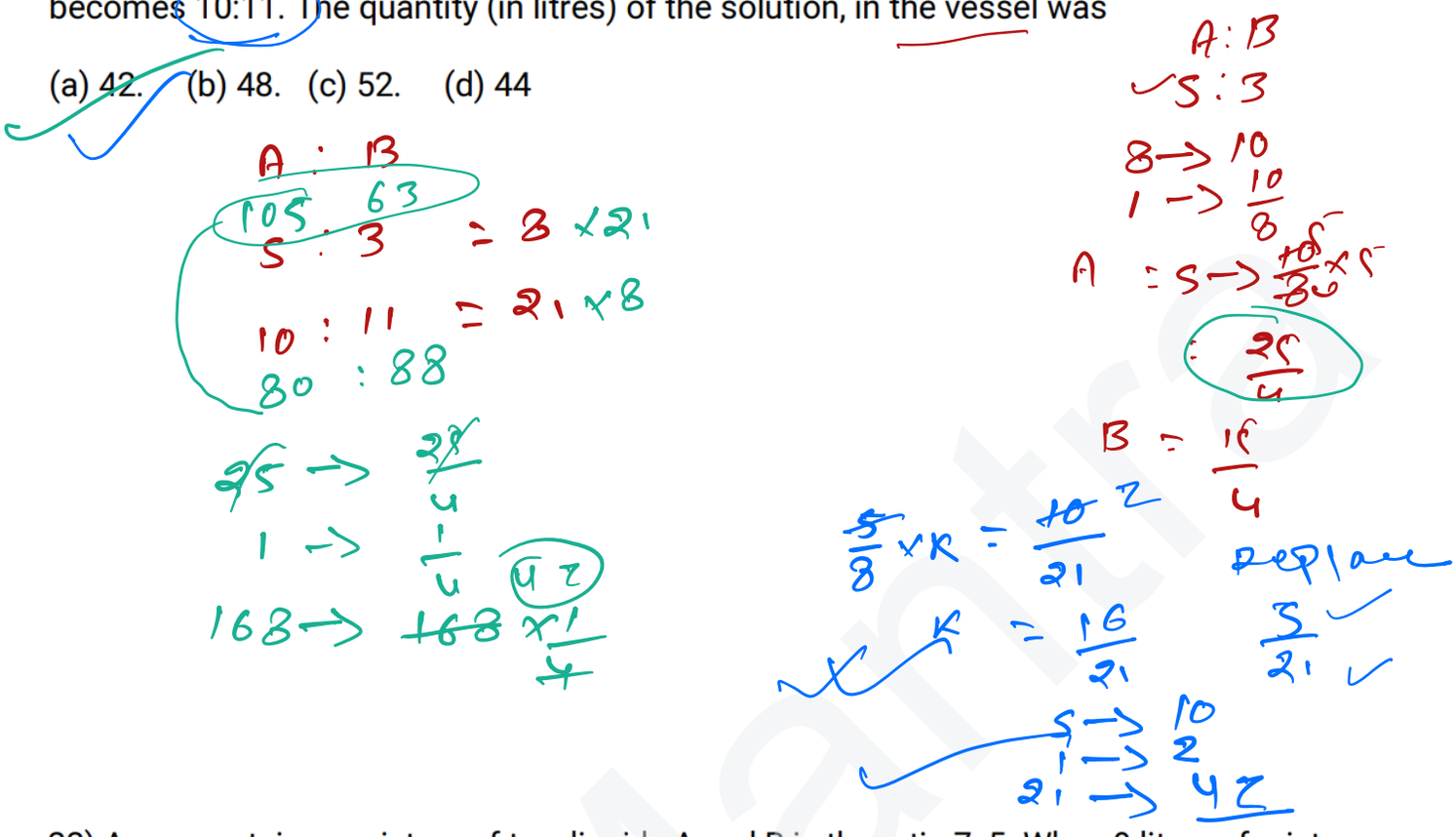
$= (1-\frac{1}{4})(1-\frac{1}{5})$

$= \frac{3}{4} \times \frac{4}{5} = \frac{3}{5}$

108.75
108 + 75/100
435/4

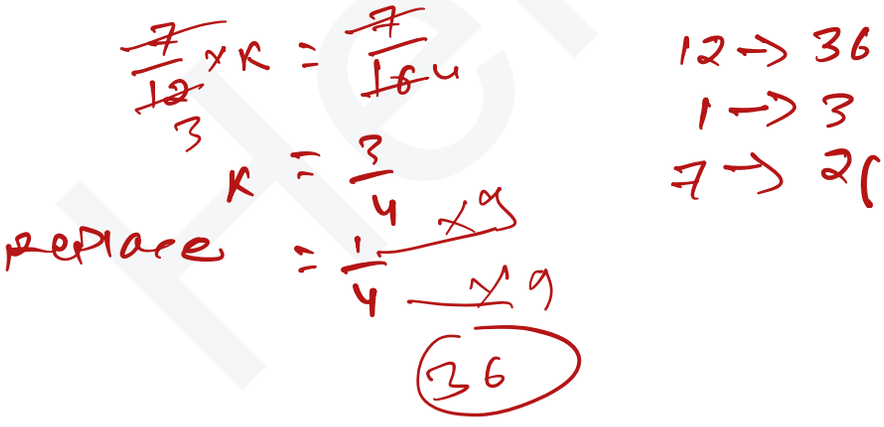
21) A vessel contains a solution of two liquids A and B in the ratio 5:3. When 10 litres of the solution is taken out and replaced by the same quantity of B, the ratio of A and B in the vessel becomes 10:11. The quantity (in litres) of the solution, in the vessel was

(a) 42. (b) 48. (c) 52. (d) 44



22) A can contains a mixture of two liquids A and B is the ratio 7: 5. When 9 liters of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7:9. How many liters of liquid A was contained by the can initially?

(a) 141tr. (b) 211tr. (c) 28ltr. (d) 35ltr



23) 46. The ratio of milk and water in a mixture is 7:5. How much part of the mixture should be replaced by water so that ratio of milk and water is 2:3 ?

(a) 11/35. (b) 11/25. (c) 13/24. (d) 13/36

$\frac{7}{12} \times K = \frac{2}{5}$

$K = \frac{24}{35}$

Replace

$\frac{11}{35}$

24) The ratio of milk and water in a mixture is 2:1. How much part of the mixture should be replaced by water so that ratio of milk and water is 5:3 ?

(a) 1/14. (b) 1/6. C)1/8. (D)1/16

$\frac{2}{3} \times K = \frac{5}{8}$

$K = \frac{15}{16}$

$\frac{1}{16}$

25)A jar contains a mixture of two liquids A and B in the ratio 3:1. When 24 litres of the mixture is taken out and 9 litres of liquid B is poured into the jar, the ratio becomes 3:4. How many litres of liquid A was contained in the jar?

(a) 30ltr. (b) 271tr. (c) 211tr. (d) 241tr