

## L3 : Alligations

### 1-Tut : Man And Rice

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The ratio in which a man must mix rice at 10.20 per kg and 14.40 per kg so as to make a mixture worth 12.60 per kg, is

#### Options

This problem has only one correct answer

4:3

2:5

3:4

None Of These

Correct Answer : C

### 2-Tut : Sugar And Salt

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If 10 kg of sugar costing Rs.15/kg and 20 kg of salt costing Rs. 10/kg are mixed, find the average cost of the mixture Rs. per kilogram.

#### Options

This problem has only one correct answer

11.33

11.67

12.33

12.67

Correct Answer : B

### 3-Tut : Tea And Mixture

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In what ratio should two qualities of tea having the rates of Rs. 40 per kg and Rs. 30 per kg be mixed in order to get a mixture that would have a rate of Rs 35 per kg?

#### Options

This problem has only one correct answer

1:1

1:2

1:3

3:1

Correct Answer : A

### 4-Tut : Table And Chair

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A man purchased a table and a chair for Rs.2000. He sold the table at a profit of 20% and the chair at a profit of 40%. In this way, his total profit was 25%. Find the cost price (in Rs.) of the table.

## Options

This problem has only one correct answer

1500

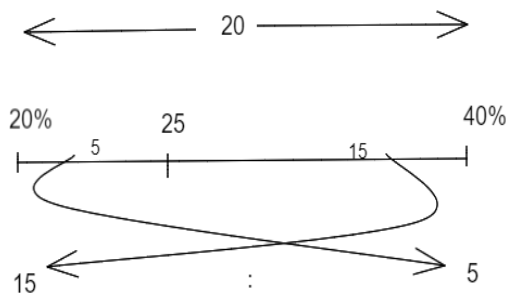
900

800

1000

Correct Answer : A

## Solution Description



When we plot the 20% and 40% profit in the number line, the difference will be 20.

But analysing the weighted average situation, the average of both the profits will be 25%.

Therefore, the ratio of the two groups (Table and Chair) will be 15 : 5

The total sum of the ratio is 20, but according to the question, it will be 2000, which is 100 times of 20.

Therefore, the cost price of the table will also be  $15 * 100 \text{ times} = 1500$

Hence, the correct option will be option(a).

## 5-Tut : Milk And Mixture

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Two types of milk having the rates of Rs.8/kg and Rs.10/kg respectively are mixed in order to produce a mixture having the rate of Rs.9.20/kg. What should be the amount of the second type of milk if the amount of the first type of milk in the mixture is 20 kg?

## Options

This problem has only one correct answer

- 20 kg
- 25 kg
- 30 kg
- 40 kg

Correct Answer : C

### 6-Tut : Ashok And Grains

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Ashok purchased two qualities of grains at the rate of Rs. 100 per quintal and Rs. 160 per quintal. In 50 quintals of the second quality, how much pulse of the first quality should be mixed so that by selling the resulting mixture at Rs. 195 per quintal, he gains a profit of 30%?

### Options

This problem has only one correct answer

- 10 quintals
- 14 quintals
- 20 quintals
- None of these

Correct Answer : A

### 7-Tut : Milk And Water

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There are two mixtures of milk and water, the quantity of milk in them being 20% and 80% of the mixture. If two liters of the first are mixed with three liters of the second, what will be the ratio of milk to water in the new mixture?

### Options

This problem has only one correct answer

- 11:9
- 11:1
- 19:11
- 14:11

Correct Answer : D

### 8-Ass : Darjeeling And Assam Tea

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The ratio in which the Darjeeling tea at Rs. 32 per kg is mixed with the Assam tea at Rs. 25 per kg so as to gain 20% by selling the mixture at Rs. 32.40 per kg is

### Options

This problem has only one correct answer

- 4:5
- 2:5
- 5:2
- 2:3

Correct Answer : B

### Solution Description

If the mixture is sell at 32.40 per kg, then the total gain is 20%.

Therefore, 32.40 is 120 percent of cost price.

Calculating original cost price =  $32.40 \times (100/120) = 27$

That means the price of mixture would be Rs. 27 per kg.

Now, the required ratios will be =  $(27 - 25) : (32 - 27) = 2 : 5$

### 9-Ass : Varieties of Rice

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In what ratio must a merchant mix two varieties of rice costing Rs. 15 and Rs.20 per kg respectively so as to get a mixture worth Rs. 16.50 per kg?

### Options

This problem has only one correct answer

3:5

5:3

7:3

7:6

Correct Answer : C

### 10-Ass : Petrol And Water

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40 litres of a mixture of petrol and water contains 10% of water. The water to be added, to make the water content 20% in the new mixture is:

### Options

This problem has only one correct answer

4 litres

6 litres

5.5 litres

5 litres

Correct Answer : D

### 11-Ass : Type1 and Type 2 Rice

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The cost of Type 1 rice is Rs. 15 per kg and Type 2 rice is Rs. 20 per kg. If both Type 1 and Type 2 are mixed in the ratio of 1: 4, then the price per kg of the mixed variety of rice is:

### Options

This problem has only one correct answer

18

19

23

61

Correct Answer : B

### 12-Ass : Merchant And Sugar

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A merchant has 1000 kg of sugar, part of which he sells at 8% profit and the rest at 16% profit. He gains 14% on the whole. The quantity sold at 16% profit is:

#### Options

This problem has only one correct answer

200

400

750

920

Correct Answer : C