# RATIO AND PROPORTION

# RATIO AND PROPORTION

## RATIO:-

A ratio is a comparison of two or more quantities of similar type. The ratio of a and b is written as .

In the ratio a : b, a and b are called the terms of the ratio where ‘a’ is the antecedent and ‘b’ is the consequent.

## Important Properties of Proportion

# RATIO AND PROPORTION

## Properties of Ratio:-

- In a ratio, the quantities which has to be compared must be of the same kind, i.e. they must be expressed in the same units.
- The ratio of two quantities determines how many times of one quantity is contained by the other.
- The order of the terms in a ratio ‘a : b’ is very important. Since 4 : 5 is different from 5 : 4.
- $a^2:b^2$ is a duplicate ratio
- $\sqrt{a}:\sqrt{b}$ is the sub-duplicate ratio
- $a^3:b^3$ is a triplicate ratio

# RATIO AND PROPORTION

## Definition of Proportion:-

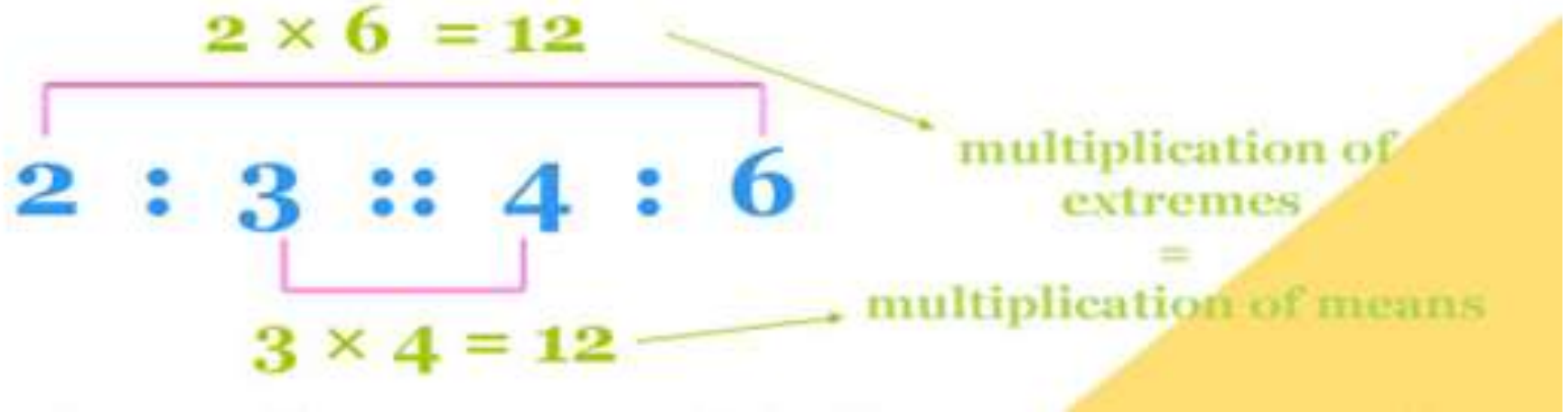
- Proportion is an equation that defines that the two given ratios are equivalent to each other. In other words, the proportion states the equality of the two fractions or the ratios. In proportion, if two sets of given numbers are increasing or decreasing in the same ratio, then the ratios are said to be directly proportional to each other.

# RATIO AND PROPORTION

**Now, let us assume that,** in proportion, the two ratios are **a:b** & **c:d.** The two terms **'b'** and **'c'** are called **'means or mean term,'** whereas the terms **'a'** and **'d'** are known as '**extremes or extreme terms.**'

**a/b = c/d or a : b :: c : d**

**Note:- Product of extremes = Product of means**



# RATIO AND PROPORTION

## Important Properties of Proportion

- The following are the important properties of proportion:
- Addendo – If a : b = c : d, then a + c : b + d
- Subtrahendo – If a : b = c : d, then a – c : b – d
- Dividendo – If a : b = c : d, then a – b : b = c – d : d
- Componendo – If a : b = c : d, then a + b : b = c+d : d
- Alternendo – If a : b = c : d, then a : c = b: d
- Invertendo – If a : b = c : d, then b : a = d : c
- Componendo and dividendo – If a : b = c : d, then a + b : a – b = c + d : c – d

# RATIO AND PROPORTION

## Difference Between Ratio and Proportion

- To understand the concept of ratio and proportion, go through the difference between ratio and proportion given here.

| S.No | Ratio | Proportion |
|---|---|---|
| 1 | The ratio is used to compare the size of two things with the same unit | The proportion is used to express the relation of two ratios |
| 2 | It is expressed using a colon (:), slash (/) | It is expressed using the double colon (::) or equal to the symbol (=) |
| 3 | It is an expression | It is an equation |
| 4 | Keyword to identify ratio in a problem is “to every” | Keyword to identify proportion in a problem is “out of” |

# RATIO AND PROPORTION

## Dividing a number in the given Ratio:-

Let ‘A’ be the number. The ratio given is a1 : a2. Here ‘A’ is to be divided in the ratio a1 : a2. It implies that A is divided in two parts such that value of first part : value of second part = a1 : a2.

Therefore, first part = a1/(a1 +a2)

second part = a2/(a1 +a2)

**Note:**

These relations are also true when we divide a number into more than two ratios (i.e. into more than two parts).

# RATIO AND PROPORTION

**Q 1. Find a fourth proportional to the numbers 6, 8, 9.**

(1) 12

(2) 7

(3) 5

(4) 14

(5) None of these

# RATIO AND PROPORTION

**Q 1. Find a fourth proportional to the numbers 6, 8, 9.**

**(1) 12**

**(2) 7**

**(3) 5**

**(4) 14**

**(5) None of these**

# RATIO AND PROPORTION

**Q 2. Find a third proportional to the numbers 3 and 6.**

**(1) 21**

**(2) 1.5**

**(3) 18**

**(4) 12**

**(5) None of these**

# RATIO AND PROPORTION

**Q 2. Find a third proportional to the numbers 3 and 6.**

(1) 21

(2) 1.5

(3) 18

(4) 12

(5) None of these

# RATIO AND PROPORTION

**Q 3. Two numbers are in the ratio of 9 : 11. If sum of these two numbers is 660, find the difference between the numbers.**

**(1) 66**

**(2) 56**

**(3) 46**

**(4) 76**

**(5) None of these**

## RATIO AND PROPORTION

**Q 3. Two numbers are in the ratio of 9 : 11. If sum of these two numbers is 660, find the difference between the numbers.**

**(1) 66**

**(2) 56**

**(3) 46**

**(4) 76**

**(5) None of these**

# RATIO AND PROPORTION

**Q 4. A bag contains rupee, 50-paise and 25-paise coins in the ratio 5 : 7 : 9. If the total amount in the bag is 430, find the number of coins of each kind.**

**(1) 200, 280, 360**

**(2) 280, 200, 360**

**(3) 360, 280, 200**

**(4) 360, 200, 280**

**(5) None of these**

# RATIO AND PROPORTION

**Q 4. A bag contains rupee, 50-paise and 25-paise coins in the ratio 5 : 7 : 9. If the total amount in the bag is 430, find the number of coins of each kind.**

**(1) 200, 280, 360**

**(2) 280, 200, 360**

**(3) 360, 280, 200**

**(4) 360, 200, 280**

**(5) None of these**

# RATIO AND PROPORTION

**Q 5. A bag contains an equal number of 50-paise, 25-paise, 20 paise and 5-paise coins respectively. If the total value is 40, how many coins of each type are there?**

**(1) 40**

**(2) 25**

**(3) 30**

**(4) 20**

**(5) None of these**

## RATIO AND PROPORTION

**Q 5. A bag contains an equal number of 50-paise, 25-paise, 20 paise and 5-paise coins respectively. If the total value is 40, how many coins of each type are there?**

**(1) 40**

**(2) 25**

**(3) 30**

**(4) 20**

**(5) None of these**

# RATIO AND PROPORTION

**Q 6. One man adds 6 litres of water to 11 litres of milk and another 9 litres of water to 8 litres of milk. What is the ratio of the strengths of milk in the two mixtures?**

**(1) 2 : 3**

**(2) 3 : 2**

**(3) 11 : 8**

**(4) 8 : 11**

**(5) None of these**

# RATIO AND PROPORTION

**Q 6. One man adds 6 litres of water to 11 litres of milk and another 9 litres of water to 8 litres of milk. What is the ratio of the strengths of milk in the two mixtures?**

(1) 2 : 3

(2) 3 : 2

(3) 11 : 8

(4) 8 : 11

(5) None of these

## RATIO AND PROPORTION

**Q 7. Two vessels contain equal quantity of mixtures of milk and water in the ratio 8 : 9 and 12 : 5 respectively. Both the mixtures are now mixed thoroughly. Find the ratio of milk to water in the new mixture so obtained.**

**(1) 7 : 10**

**(2) 13 : 21**

**(3) 21 : 13**

**(4) 10 : 7**

**(5) None of these**

## RATIO AND PROPORTION

**Q 7. Two vessels contain equal quantity of mixtures of milk and water in the ratio 8 : 9 and 12 : 5 respectively. Both the mixtures are now mixed thoroughly. Find the ratio of milk to water in the new mixture so obtained.**

(1) 7 : 10

(2) 13 : 21

(3) 21 : 13

(4) 10 : 7

(5) None of these

# RATIO AND PROPORTION

**Q 8. Two vessels contain equal quantity of mixtures of milk and water in the ratio 9 : 5 and 4 : 3 respectively. Both the mixtures are now mixed thoroughly. Find the ratio of milk to water in the new mixture so obtained.**

**(1) 17 : 11**

**(2) 11 : 17**

**(3) 8 : 13**

**(4) 13 : 8**

**(5) None of these**

## RATIO AND PROPORTION

**Q 8. Two vessels contain equal quantity of mixtures of milk and water in the ratio 9 : 5 and 4 : 3 respectively. Both the mixtures are now mixed thoroughly. Find the ratio of milk to water in the new mixture so obtained.**

**(1) 17 : 11**

**(2) 11 : 17**

**(3) 8 : 13**

**(4) 13 : 8**

**(5) None of these**

## RATIO AND PROPORTION

**Q 9. The contents of two vessels containing water and milk are in the ratio 2 : 3 and 4 : 5 are mixed in the ratio 1 : 2. The resulting mixture will have water and milk in the ratio_____ .**

**(1) 77 : 58**

**(2) 58 : 77**

**(3) 68 : 77**

**(4) 77 : 68**

**(5) None of these**

## RATIO AND PROPORTION

**Q 9. The contents of two vessels containing water and milk are in the ratio 2 : 3 and 4 : 5 are mixed in the ratio 1 : 2. The resulting mixture will have water and milk in the ratio_____ .**

**(1) 77 : 58**

**(2) 58 : 77**

**(3) 68 : 77**

**(4) 77 : 68**

**(5) None of these**

# RATIO AND PROPORTION

**Q 10. The contents of two vessels containing water and milk are in the ratio 3 : 4 and 5 : 4 are mixed in the ratio 1 : 4. The resulting mixture will have water and milk in the ratio_____ .**

**(1) 184 : 176**

**(2) 167 : 184**

**(3) 167 : 148**

**(4) 148 : 167**

**(5) None of these**

## RATIO AND PROPORTION

**Q 10. The contents of two vessels containing water and milk are in the ratio 3 : 4 and 5 : 4 are mixed in the ratio 1 : 4. The resulting mixture will have water and milk in the ratio_____ .**

**(1) 184 : 176**

**(2) 167 : 184**

**(3) 167 : 148**

**(4) 148 : 167**

**(5) None of these**

# RATIO AND PROPORTION

**Q 11. An amount of 950 is distributed among A, B and C in the ratio of 5 : 11 : 3, what is the difference between the share of B and A?**

**(1) 550**

**(2) 250**

**(3) 200**

**(4) 300**

**(5) None of these**

# RATIO AND PROPORTION

**Q 11. An amount of 950 is distributed among A, B and C in the ratio of 5 : 11 : 3, what is the difference between the share of B and A?**

(1) 550

(2) 250

(3) 200

(4) 300

(5) None of these

# RATIO AND PROPORTION

**Q 12. A and B are two alloys of gold and copper prepared by mixing metals in proportions 7 : 2 and 7 : 11 respectively. If equal quantities of alloys are melted to form a third alloy C, the proportion of gold and copper in C will be :**

**(1) 5 : 9**

**(2) 5 : 7**

**(3) 7 : 5**

**(4) 9 : 5**

**(5) None of these**

## RATIO AND PROPORTION

**Q 12. A and B are two alloys of gold and copper prepared by mixing metals in proportions 7 : 2 and 7 : 11 respectively. If equal quantities of alloys are melted to form a third alloy C, the proportion of gold and copper in C will be :**

**(1) 5 : 9**

**(2) 5 : 7**

**(3) 7 : 5**

**(4) 9 : 5**

**(5) None of these**

## RATIO AND PROPORTION

**Q 13. The sum of three numbers is 105. If the ratio between the first and second be 2 : 3 and that between the second and third be 4 : 5, then find the second number.**

**(1) 35**

**(2) 24**

**(3) 36**

**(4) 45**

**(5) None of these**

## RATIO AND PROPORTION

**Q 13. The sum of three numbers is 105. If the ratio between the first and second be 2 : 3 and that between the second and third be 4 : 5, then find the second number.**

**(1) 35**

**(2) 24**

**(3) 36**

**(4) 45**

**(5) None of these**

# RATIO AND PROPORTION

**Q 14. The sum of three numbers is 275. If the ratio between the first and second be 3 : 7 and that between the second and third be 2 : 5, then find the second number.**

**(1) 30**

**(2) 175**

**(3) 70**

**(4) 80**

**(5) None of these**

# RATIO AND PROPORTION

**Q 14. The sum of three numbers is 275. If the ratio between the first and second be 3 : 7 and that between the second and third be 2 : 5, then find the second number.**

(1) 30

(2) 175

(3) 70

(4) 80

(5) None of these

## RATIO AND PROPORTION

**Q 15. If A : B = 3 : 4, B : C = 5 : 7 and C : D = 3 : 5, then find A : B : C : D.**

**(1) 9 : 21 : 12 : 28**

**(2) 45 : 60 : 84 : 140**

**(3) 9 : 12 : 28 : 21**

**(4) 9 : 12 : 21 : 82**

**(5) None of these**

## RATIO AND PROPORTION

**Q 15. If A : B = 3 : 4, B : C = 5 : 7 and C : D = 3 : 5, then find A : B : C : D.**

(1) 9 : 21 : 12 : 28

(2) 45 : 60 : 84 : 140

(3) 9 : 12 : 28 : 21

(4) 9 : 12 : 21 : 82

(5) None of these

## RATIO AND PROPORTION

**Q 16. A hound pursues a hare and takes 6 leaps for every 7 leaps of the hare, but 5 leaps of the hound are equal to 6 leaps of the hare. Compare the rates of the hound and the hare.**

**(1) 36 : 35**

**(2) 35 : 34**

**(3) 34 : 33**

**(4) 3 : 32**

**(5) None of these**

## RATIO AND PROPORTION

**Q 16. A hound pursues a hare and takes 6 leaps for every 7 leaps of the hare, but 5 leaps of the hound are equal to 6 leaps of the hare. Compare the rates of the hound and the hare.**

**(1) 36 : 35**

**(2) 35 : 34**

**(3) 34 : 33**

**(4) 3 : 32**

**(5) None of these**

## RATIO AND PROPORTION

**Q 17. A hound pursues a hare and takes 3 leaps for every 4 leaps of the hare, but 2 leaps of the hound are equal to 3 leaps of the hare. Compare the rates of the hound and the hare.**

**(1) 9 : 8**

**(2) 7 : 6**

**(3) 5 : 6**

**(4) 8 : 9**

**(5) None of these**

## RATIO AND PROPORTION

**Q 17. A hound pursues a hare and takes 3 leaps for every 4 leaps of the hare, but 2 leaps of the hound are equal to 3 leaps of the hare. Compare the rates of the hound and the hare.**

**(1) 9 : 8**

**(2) 7 : 6**

**(3) 5 : 6**

**(4) 8 : 9**

**(5) None of these**

# RATIO AND PROPORTION

**Q 18. In 28 litres mixture of milk and water the ratio of milk and water is 5 : 2. How much water should be added in the mixture so that the ratio of milk to water becomes 2 : 5?**

**(1) 42 litres**

**(2) 32 litres**

**(3) 24 litres**

**(4) 39 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 18. In 28 litres mixture of milk and water the ratio of milk and water is 5 : 2. How much water should be added in the mixture so that the ratio of milk to water becomes 2 : 5?**

**(1) 42 litres**

**(2) 32 litres**

**(3) 24 litres**

**(4) 39 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 19. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. If the ratio of milk and water is to be 1 : 2, then the amount of water to be further added is :**

**(1) 42 litres**

**(2) 56 litres**

**(3) 60 litres**

**(4) 77 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 19. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. If the ratio of milk and water is to be 1 : 2, then the amount of water to be further added is :**

(1) 42 litres

(2) 56 litres

(3) 60 litres

(4) 77 litres

(5) None of these

## RATIO AND PROPORTION

**Q 20. A mixture contains milk and water in the ratio of 9 : 4. On adding 4 litres of water, the ratio of milk to water becomes 3 : 2. Find the total quantity of the original mixture.**

**(1) 26 litres**

**(2) 18 litres**

**(3) 10 litres**

**(4) 30 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 20. A mixture contains milk and water in the ratio of 9 : 4. On adding 4 litres of water, the ratio of milk to water becomes 3 : 2. Find the total quantity of the original mixture.**

**(1) 26 litres**

**(2) 18 litres**

**(3) 10 litres**

**(4) 30 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 21. A mixture contains milk and water in the ratio of 4 : 3. On adding 2 litres of water, the ratio of milk to water becomes 8 : 7. Find the total quantity of the final mixture.**

**(1) 16 litres**

**(2) 12 litres**

**(3) 28 litres**

**(4) 30 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 21. A mixture contains milk and water in the ratio of 4 : 3. On adding 2 litres of water, the ratio of milk to water becomes 8 : 7. Find the total quantity of the final mixture.**

(1) 16 litres

(2) 12 litres

(3) 28 litres

(4) 30 litres

(5) None of these

# RATIO AND PROPORTION

**Q 22. The ratio between two numbers is 15 : 7. If each number be decreased by 2, the ratio becomes 7 : 3. Find the numbers.**

**(1) 15, 7**

**(2) 30, 14**

**(3) 45, 21**

**(4) 60, 28**

**(5) None of these**

# RATIO AND PROPORTION

**Q 22. The ratio between two numbers is 15 : 7. If each number be decreased by 2, the ratio becomes 7 : 3. Find the numbers.**

(1) 15, 7

(2) 30, 14

(3) 45, 21

(4) 60, 28

(5) None of these

# RATIO AND PROPORTION

**Q 23. The incomes of A and B are in the ratio 9 : 4 and their expenditures are in the ratio 7 : 3. If each saves 2000, what are their incomes?**

**(1) 90000, 4000**

**(2) 27000, 12000**

**(3) 72000, 16000**

**(4) 72000, 32000**

**(5) None of these**

# RATIO AND PROPORTION

**Q 23. The incomes of A and B are in the ratio 9 : 4 and their expenditures are in the ratio 7 : 3. If each saves 2000, what are their incomes?**

(1) 90000, 4000

(2) 27000, 12000

(3) 72000, 16000

(4) 72000, 32000

(5) None of these

## RATIO AND PROPORTION

**Q 24. A mixture contains milk and water in the ratio of 9 : 4. On adding 8 litres of water, the ratio of milk to water becomes 3 : 2. Find the total quantity of the original mixture.**

**(1) 52 litres**

**(2) 26 litres**

**(3) 104 litres**

**(4) 30 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 24. A mixture contains milk and water in the ratio of 9 : 4. On adding 8 litres of water, the ratio of milk to water becomes 3 : 2. Find the total quantity of the original mixture.**

**(1) 52 litres**

**(2) 26 litres**

**(3) 104 litres**

**(4) 30 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 25. A mixture contains milk and water in the ratio of 4 : 3. On adding 6 litres of water, the ratio of milk to water becomes 8 : 7. Find the total quantity of the final mixture.**

**(1) 168 litres**

**(2) 12 litres**

**(3) 42 litres**

**(4) 84 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 25. A mixture contains milk and water in the ratio of 4 : 3. On adding 6 litres of water, the ratio of milk to water becomes 8 : 7. Find the total quantity of the final mixture.**

(1) 168 litres

(2) 12 litres

(3) 42 litres

(4) 84 litres

(5) None of these

# RATIO AND PROPORTION

**Q 26. Find the number which, when added to the terms of the ratio 13 : 28 makes it equal to the ratio 1 : 2.**

**(1) 4**

**(2) 3**

**(3) 2**

**(4) 1**

**(5) None of these**

# RATIO AND PROPORTION

**Q 26. Find the number which, when added to the terms of the ratio 13 : 28 makes it equal to the ratio 1 : 2.**

(1) 4

(2) 3

(3) 2

(4) 1

(5) None of these

# RATIO AND PROPORTION

**Q 27. Find the number which, when subtracted from the terms of the ratio 11 : 25 makes it equal to the ratio 4 : 11.**

**(1) 4**

**(2) 3**

**(3) 2**

**(4) 1**

**(5) None of these**

## RATIO AND PROPORTION

**Q 27. Find the number which, when subtracted from the terms of the ratio 11 : 25 makes it equal to the ratio 4 : 11.**

(1) 4

(2) 3

(3) 2

(4) 1

(5) None of these

## RATIO AND PROPORTION

**Q 28. A bucket contains a mixture of two liquids A and B in the proportion 5 : 3. If 16 litres of the mixture is replaced by 16 litres of liquid B, then the ratio of the two liquids becomes 3 : 5. How much of the liquid B was there in the bucket?**

(1) 25 litres

(2) 15 litres

(3) 18 litres

(4) 24 litres

(5) None of these

## RATIO AND PROPORTION

**Q 28.** A bucket contains a mixture of two liquids A and B in the proportion 5 : 3. If 16 litres of the mixture is replaced by 16 litres of liquid B, then the ratio of the two liquids becomes 3 : 5. How much of the liquid B was there in the bucket?

(1) 25 litres

(2) 15 litres

(3) 18 litres

(4) 24 litres

(5) None of these

## RATIO AND PROPORTION

**Q 29. A bucket contains a mixture of two liquids A and B in the proportion 6 : 5. If 33 litres of the mixture is replaced by 33 litres of liquid B, then the ratio of the two liquids becomes 3 : 4. How much of the liquid A was there in the bucket?**

(1) 84 litres

(2) 48 litres

(3) 70 litres

(4) 64 litres

(5) None of these

## RATIO AND PROPORTION

**Q 29.** A bucket contains a mixture of two liquids A and B in the proportion 6 : 5. If 33 litres of the mixture is replaced by 33 litres of liquid B, then the ratio of the two liquids becomes 3 : 4. How much of the liquid A was there in the bucket?

(1) 84 litres

(2) 48 litres

(3) 70 litres

(4) 64 litres

(5) None of these

## RATIO AND PROPORTION

**Q 30. A vessel contains liquids A and B in ratio 3 : 1. If 8 litres of the mixture are removed and the same quantity of liquid B is added, the ratio becomes 1 : 3. What quantity does the vessel hold?**

(1) 12 litres

(2) 14 litres

(3) 16 litres

(4) 10 litres

(5) None of these

## RATIO AND PROPORTION

**Q 30. A vessel contains liquids A and B in ratio 3 : 1. If 8 litres of the mixture are removed and the same quantity of liquid B is added, the ratio becomes 1 : 3. What quantity does the vessel hold?**

**(1) 12 litres**

**(2) 14 litres**

**(3) 16 litres**

**(4) 10 litres**

**(5) None of these**

## RATIO AND PROPORTION

**Q 31. A vessel contains liquids A and B in ratio 7 : 6. If 26 litres of the mixture are removed and the same quantity of liquid B is added, the ratio becomes 6 : 7. What quantity does the vessel hold?**

**(1) 142 litres**
**(2) 172 litres**
**(3) 156 litres**
**(4) 182 litres**
**(5) None of these**

## RATIO AND PROPORTION

**Q 31. A vessel contains liquids A and B in ratio 7 : 6. If 26 litres of the mixture are removed and the same quantity of liquid B is added, the ratio becomes 6 : 7. What quantity does the vessel hold?**

(1) 142 litres
(2) 172 litres
(3) 156 litres
(4) 182 litres
(5) None of these

# RATIO AND PROPORTION

**Q 32. An employer reduces the number of his employees in the ratio 9 : 4 and increases their wages in the ratio 2 : 5. State whether his bill of total wages increases or decreases, and in what ratio?**

**(1) Decrease, 10 : 9**

**(2) Increase, 10 : 9**

**(3) Decrease 9 : 11**

**(4) Increase, 9 : 10**

**(5) None of these**

## RATIO AND PROPORTION

**Q 32. An employer reduces the number of his employees in the ratio 9 : 4 and increases their wages in the ratio 2 : 5. State whether his bill of total wages increases or decreases, and in what ratio?**

**(1) Decrease, 10 : 9**

**(2) Increase, 10 : 9**

**(3) Decrease 9 : 11**

**(4) Increase, 9 : 10**

**(5) None of these**

## RATIO AND PROPORTION

**Q 33. Two candles of the same height are lighted at the same time. The first is consumed in 7 hours and the second in 6 hours. Assuming that each candle burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles becomes 3 : 1.**

**(1) 5 hours 36 minutes**

**(2) 5 hours**

**(3) 5 hours 60 minutes**

**(4) 6 hours**

**(5) None of these**

## RATIO AND PROPORTION

**Q 33. Two candles of the same height are lighted at the same time. The first is consumed in 7 hours and the second in 6 hours. Assuming that each candle burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles becomes 3 : 1.**

**(1) 5 hours 36 minutes**

**(2) 5 hours**

**(3) 5 hours 60 minutes**

**(4) 6 hours**

**(5) None of these**

# RATIO AND PROPORTION

**Q 34. Two candles of the same height are lighted at the same time. The first is consumed in 3 hours and the second in 1 hour. Assuming that each candle burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles become 2 : 1.**

**(1) 48 minutes**

**(2) 1 hour 36 min**

**(3) 36 minutes**

**(4) 60 minutes**

**(5) None of these**

## RATIO AND PROPORTION

**Q 34. Two candles of the same height are lighted at the same time. The first is consumed in 3 hours and the second in 1 hour. Assuming that each candle burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles become 2 : 1.**

**(1) 48 minutes**

**(2) 1 hour 36 min**

**(3) 36 minutes**

**(4) 60 minutes**

**(5) None of these**

## RATIO AND PROPORTION

**Q 35. Divide 1162 into three parts such that 4 times the first is equal to 5 times the second and 7 times the third. Find the value of smallest part.**

**(1) 490**

**(2) 492**

**(3) 390**

**(4) 280**

**(5) None of these**

## RATIO AND PROPORTION

**Q 35. Divide 1162 into three parts such that 4 times the first is equal to 5 times the second and 7 times the third. Find the value of smallest part.**

(1) 490

(2) 492

(3) 390

(4) 280

(5) None of these

# RATIO AND PROPORTION

**Q 36. Divide 680 among A, B and C such that A gets 2/3 of what B gets and B gets 1/4th of what C gets. What is C's share?**

**(1) 280**

**(2) 380**

**(3) 480**

**(4) 120**

**(5) None of these**

## RATIO AND PROPORTION

**Q 36. Divide 680 among A, B and C such that A gets 2/3 of what B gets and B gets 1/4th of what C gets. What is C's share?**

(1) 280

(2) 380

(3) 480

(4) 120

(5) None of these

## RATIO AND PROPORTION

**Q 37. When 50% of one number is added to a second number, the second number increases to its four-thirds. What is the ratio between the first number and the second number?**

(1) 3 : 2

(2) 3 : 4

(3) 2 : 3

(4) Data inadequate

(5) None of these

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**Q 38.** 600 has been divided among A, B and C in such a way that 40 more than (2/5) of A's share, 20 more than (2/7) of B's share, 10 more than (9/17) of C's share, are all equal. A's share is :

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(2) 170

(3) 150

(4) 200

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**Q 39. Gold is 19 times as heavy as water and copper 9 times as heavy as water. The ratio in which these two metals be mixed so that the mixture is 15 times as heavy as water, is :**

(1) 1 : 2

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**Q 40. One year ago the ratio between Laxman's and Gopal's salary was 3 : 4. The individual ratios between their last year's and this year's salaries are 4 : 5 and 2 : 3 respectively. At present the total of their salary is 4160. The salary of Laxman now, is–**

**(1) 1600**

**(2) 2560**

**(3) 1040**

**(4) 3120**

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# THANK YOU