

Name : Word Problems on Ratios Chapter : Ratio and Proportion Grade : ICSE Grade VIII License : Non Commercial Use

 In a mixture of 407 litres, the ratio of milk and water is 18 : 19. How much water must be added to this mixture to make the ratio 198 : 257?

(i) 46 (ii) 50 (iii) 49 (iv) 48 (v) 47

2. The ratio of males to females in a committee of 640 members is 15 : 17. How many more ladies should be added to the committee so that the ratio of males to females is 75 : 103?

(i) 74 (ii) 73 (iii) 69 (iv) 72 (v) 71

An employer reduces the number of employees in the ratio of 10 : 9 and increases their wages in the ratio 4 : 7.
 In what ratio, the wage bill is increased or decreased?

(i) 40:63 (ii) 40:66 (iii) 40:60 (iv) 39:63

4. The work done by (2x + 1) men in (5x) days and work done by (9x + 1) men in (x + 1) days is in the ratio of 15 : 16 . Find the value of x

(i) 2 (ii) 1 (iii) 3 (iv) 4 (v) 6

5. A man reduces his weight in the ratio 16 : 12. What is his weight now, if originally he was 80 kg ?
(i) 58 kg (ii) 62 kg (iii) 59 kg (iv) 61 kg (v) 60 kg

6. A certain amount has been divided into two parts in the ratio 7 : 9. If the first part is 168, find the total amount.
(i) 383 (ii) 384 (iii) 381 (iv) 385 (v) 387

Divide ₹41400 into three parts such that the first one is $\frac{7}{6}$ of the second and ratio between second and the third is 7.

3:5

(i) ₹12600.00:₹10800.00:₹10800.00 (ii) ₹10800.00:₹18000.00:₹12600.00

(iii) ₹12600.00:₹18000.00:₹10800.00 (iv) ₹12600.00:₹10800.00:₹18000.00

(v) ₹18000.00:₹12600.00:₹10800.00

8. Increase 442 in the ratio 17 : 22
(i) 569 (ii) 571 (iii) 572 (iv) 573 (v) 575

- 9. Divide ₹13600 among A,B,C so that A shall receive ⁹/₈ of what B and C together recieve and B may receive ⁶/₁₁ of what A and C receive
 - (i) ₹4800.00:₹1600.00:₹7200.00 (ii) ₹7200.00:₹1600.00:₹4800.00 (iii) ₹7200.00:₹4800.00

(iv) ₹1600.00:₹7200.00:₹4800.00 (v) ₹7200.00:₹4800.00:₹1600.00

- 10. A bag contains ₹755 in the form of five-rupee, two-rupee and one-rupee coins in the ratio 20 : 18 : 15. Find the number of coins of each type
 - (i) 102,85,75 (ii) 99,90,80 (iii) 98,95,75 (iv) 101,95,70 (v) 100,90,75

In an examination, the ratio of passes to failures was 8 : 1.

11. Had 25 less appeared and 20 less passed, the ratio of passes to failures would have been 44 : 5. How many students appeared for the examination?

(i) 260 (ii) 275 (iii) 280 (iv) 270 (v) 265

12. What number must be added to each term of the ratio 18:36 to make it 19:20 ?

(i) 323 (ii) 321 (iii) 325 (iv) 324 (v) 326

- 13. A ratio is equal to 9 : 10. If its antecendent is 378, what is its consequent?
 (i) 418 (ii) 423 (iii) 419 (iv) 421 (v) 420
- 14. A ratio is equal to 35 : 2. If its consequent is 780, what is its antecendent?
 (i) 13653 (ii) 13649 (iii) 13650 (iv) 13647 (v) 13651
- 15. Two numbers are in the ratio 7 : 10. If 18 is added to each number, the ratio becomes 58 : 79. Find the numbers.
 (i) 112:160 (ii) 98:140 (iii) 91:130 (iv) 105:150 (v) 84:120

The ratio of two numbers is

- 16. 1:5
 - and their LCM is 55. Find the numbers.
 - (i) 12:60 (ii) 10:50 (iii) 9:45 (iv) 11:55 (v) 13:65

17. If 4A = 7B = 6C, find A: B: C

(i) 21:15:14 (ii) 22:12:14 (iii) 21:12:14 (iv) 20:12:14 (v) 21:9:14

- 18. If $\frac{A}{9} = \frac{B}{6} = \frac{C}{8}$, find A : B : C (i) 9:8:8 (ii) 8:6:8 (iii) 9:6:8 (iv) 9:3:8 (v) 10:6:8
- 19. If 4A = 3B and 5B = 2C, find A : C
 (i) 3:12 (ii) 3:10 (iii) 3:8 (iv) 4:10 (v) 2:10
- 20. Divide 1020 in the ratio $\frac{7}{a}:\frac{5}{a}$
 - (i) 596, 425 (ii) 595, 425 (iii) 594, 425 (iv) 595, 428 (v) 595, 423

21. Divide 2646 in the ratio 1/8: 6/5: 9/8
(i) 136, 1296, 1215 (ii) 135, 1296, 1215 (iii) 135, 1298, 1215 (iv) 135, 1293, 1215 (v) 134, 1296, 1215

22. Two numbers are in the ratio 9 : 4 and their difference is 140. Find the numbers.

(i) 252,115 (ii) 253,112 (iii) 252,109 (iv) 252,112 (v) 251,112

An office contains 672 employees of 4 types. The managers, team leaders, developers and testers are in the ratio 6:3:7:5. The number of managers in the office =

(i) 194 (ii) 189 (iii) 193 (iv) 192 (v) 191

24. An office contains 125 managers, 150 team leaders, 25 developers and 175 testers. The ratio of all employees in the office =

(i) 4:6:1:7 (ii) 5:8:1:7 (iii) 5:3:1:7 (iv) 6:6:1:7 (v) 5:6:1:7

25. An office contains 196 managers, 28 team leaders, 168 developers and 56 testers. The ratio of managers and team leaders =

(i) 8:1 (ii) 7:1 (iii) 7:-1 (iv) 6:1 (v) 7:3

26. An office contains 128 managers, 192 team leaders, 384 developers and 320 testers. The ratio of managers to the total employees =

(i) 1:11 (ii) 0:8 (iii) 1:8 (iv) 2:8 (v) 1:6

27. A box contains 1040 fruits of 3 types. The mangoes, apples, and oranges are in the ratio 7 : 4 : 5. The number of mangoes in the box =

(i) 454 (ii) 458 (iii) 453 (iv) 456 (v) 455

- 28. A box contains 196 mangoes, 168 apples and 140 oranges. The ratio of all fruits in the box =
 (i) 8:6:5 (ii) 7:9:5 (iii) 6:6:5 (iv) 7:6:5 (v) 7:3:5
- 29. A box contains 48 mangoes, 24 apples and 72 oranges. The ratio of mangoes and apples = (i) 2:1 (ii) 1:1 (iii) 2:3 (iv) 3:1 (v) 2:-1
- 30. A box contains 156 mangoes, 234 apples and 78 oranges. The ratio of mangoes to the total fruits =
 (i) 1:5 (ii) 2:3 (iii) 1:1 (iv) 0:3 (v) 1:3
- 31. A box contains 217 pens and 124 pencils. The ratio of all stationary items in the box =
 (i) 8:4 (ii) 7:4 (iii) 7:7 (iv) 6:4 (v) 7:1
- 32. A box contains 124 pens and 155 pencils. The ratio of pens to the total stationary items =
 (i) 4:7 (ii) 3:9 (iii) 4:11 (iv) 4:9 (v) 5:9
- 33. A box contains 138 pens and 92 pencils. The ratio of pencils to the total stationary items =
 (i) 2:7 (ii) 2:5 (iii) 3:5 (iv) 1:5 (v) 2:2

Assignment Key						
1) (iv)	2) (iv)	3) (i)	4) (iii)	5) (v)	6) (ii)	
7) (iv)	8) (iii)	9) (v)	10) (v)	11) (iv)	12) (iv)	
13) (v)	14) (iii)	15) (ii)	16) (iv)	17) (iii)	18) (iii)	
19) (ii)	20) (ii)	21) (ii)	22) (iv)	23) (iv)	24) (v)	
25) (ii)	26) (iii)	27) (v)	28) (iv)	29) (i)	30) (v)	
31) (ii)	32) (iv)	33) (ii)				

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