Name: Word Problems on Ratios

Chapter: Ratio and Proportion

Grade: ICSE Grade VIII

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- In a mixture of 528 litres, the ratio of milk and water is 16: 17. How much water must be added to this mixture to make the ratio 64: 77?
 - (i) 36 (ii) 37 (iii) 38 (iv) 34 (v) 35
- 2. The ratio of males to females in a committee of 60 members is 2 : 1. How many more ladies should be added to the committee so that the ratio of males to females is 1 : 3?
 - (i) 97 (ii) 100 (iii) 99 (iv) 102 (v) 101
- An employer reduces the number of employees in the ratio of 15:2 and increases their wages in the ratio 3:8.

 In what ratio, the wage bill is increased or decreased?
 - (i) 45:18 (ii) 45:13 (iii) 44:16 (iv) 45:16
- The work done by (17x) men in (2x + 1) days and work done by (x + 1) men in (28x) days is in the ratio of 85 : 84 4. Find the value of x
 - (i) 2 (ii) 3 (iii) (-1) (iv) 1 (v) 5
- 5. A man reduces his weight in the ratio 16:10. What is his weight now, if originally he was 68 kg?
 - (i) $\frac{87}{2}$ kg (ii) 43 kg (iii) $\frac{89}{2}$ kg (iv) $\frac{85}{2}$ kg
- 6. A certain amount has been divided into two parts in the ratio 7:9. If the first part is 266, find the total amount.
 - (i) 605 (ii) 607 (iii) 611 (iv) 608 (v) 609
- 7. Divide $\stackrel{?}{=}52500$ into three parts such that the first one is $\frac{4}{9}$ of the second and ratio between second and the third is 3:4
 - (i) ₹8400.00:₹18900.00:₹18900.00 (ii) ₹18900.00:₹25200.00:₹8400.00
 - (iii) ₹8400.00:₹18900.00:₹25200.00 (iv) ₹8400.00:₹25200.00:₹18900.00
 - (v) ₹25200.00:₹8400.00:₹18900.00
- 8. Increase 793 in the ratio 13:17
 - (i) 1036 (ii) 1037 (iii) 1039 (iv) 1038 (v) 1034
- 9. Divide $\stackrel{7}{=}65600$ among A,B,C so that A shall receive $\frac{5}{36}$ of what B and C together recieve and B may receive $\frac{20}{21}$ of what A and C receive
 - (i) ₹32000.00:₹25600.00:₹8000.00 (ii) ₹25600.00:₹8000.00:₹32000.00
 - (iii) ₹8000.00:₹32000.00:₹32000.00 (iv) ₹8000.00:₹25600.00:₹32000.00
 - (v) ₹8000.00:₹32000.00:₹25600.00

10. A bag contains ₹808 in the form of five-rupee, two-rupee and one-rupee coins in the ratio 10 : 20 : 11. Find the number of coins of each type
(i) 80, 160, 88 (ii) 78, 165, 88 (iii) 82, 155, 88 (iv) 79, 160, 93 (v) 81, 165, 83
In an examination, the ratio of passes to failures was 5 : 4.
11. Had 185 less appeared and 10 less passed, the ratio of passes to failures would have been 68 : 21. How many students appeared for the examination?
(i) 630 (ii) 620 (iii) 625 (iv) 635 (v) 640
12. What number must be added to each term of the ratio 70:154 to make it 23:29?
(i) 251 (ii) 252 (iii) 253 (iv) 250 (v) 254
13. A ratio is equal to 1 : 5. If its antecendent is 3332, what is its consequent?
(i) 16659 (ii) 16661 (iii) 16657 (iv) 16660 (v) 16663
14. A ratio is equal to 7 : 3. If its consequent is 1890, what is its antecendent?
(i) 4407 (ii) 4412 (iii) 4411 (iv) 4410 (v) 4409

15. Two numbers are in the ratio 6: 18. If 14 is added to each number, the ratio becomes 37: 97. Find the numbers.

The ratio of two numbers is

17. If 7A = 5B = 8C, find A: B: C

16. 2:1

and their LCM is 24. Find the numbers.

(i) 24:12 (ii) 22:11 (iii) 26:13 (iv) 28:14 (v) 20:10

(i) 60:180 (ii) 48:144 (iii) 66:198 (iv) 54:162 (v) 72:216

(i) 40:53:35 (ii) 40:59:35 (iii) 40:56:35 (iv) 41:56:35 (v) 39:56:35

18. If $\frac{A}{7} = \frac{B}{6} = \frac{C}{9}$, find A: B: C

(i) 7:8:9 (ii) 7:4:9 (iii) 6:6:9 (iv) 8:6:9 (v) 7:6:9

19. If 7 A = 3 B and 2 B = 6 C, find A: C(i) 10:7 (ii) 9:5 (iii) 9:9 (iv) 8:7 (v) 9:7

20. Divide 1769 in the ratio $\frac{5}{2}$: $\frac{2}{5}$

(i) 1525, 246 (ii) 1525, 242 (iii) 1524, 244 (iv) 1525, 244 (v) 1526, 244

21. Divide 5230 in the ratio $\frac{8}{9}: \frac{4}{7}: \frac{1}{5}$

 $\hbox{(i)} \ \ 2800 \ , \ 1798 \ , \ 630 \ \ \hbox{(ii)} \ \ \ 2799 \ , \ 1800 \ , \ 630 \ \ \hbox{(iii)} \ \ \ 2801 \ , \ 1800 \ , \ 630 \ \ \hbox{(iv)} \ \ \ 2800 \ , \ 1803 \ , \ 630$

(v) 2800, 1800, 630

22. Two numbers are in the ratio 3:1 and their difference is 48. Find the numbers.

(i) 72,24 (ii) 71,24 (iii) 73,24 (iv) 72,21 (v) 72,26

An office contains 1026 employees of 4 types. The managers, team leaders, developers and testers are in the ratio $6:2:7:4$. The number of managers in the office =
(i) 325 (ii) 322 (iii) 324 (iv) 326 (v) 323
An office contains 175 managers, 125 team leaders, 150 developers and 100 testers. The ratio of all employees in the office = (i) 7:3:6:4 (ii) 8:5:6:4 (iii) 7:5:6:4 (iv) 6:5:6:4 (v) 7:8:6:4
An office contains 308 managers, 176 team leaders, 88 developers and 44 testers. The ratio of managers and team leaders =
(i) 8:4 (ii) 7:2 (iii) 6:4 (iv) 7:4 (v) 7:6
An office contains 186 managers, 62 team leaders, 217 developers and 155 testers. The ratio of managers to the total employees =
(i) 4:10 (ii) 3:12 (iii) 3:10 (iv) 2:10 (v) 3:7
A box contains 754 fruits of 3 types. The mangoes, apples, and oranges are in the ratio 2 : 5 : 6. The number of mangoes in the box =
(i) 117 (ii) 115 (iii) 116 (iv) 114 (v) 118
28. A box contains 156 mangoes, 234 apples and 273 oranges. The ratio of all fruits in the box =
(i) 4:9:7 (ii) 4:4:7 (iii) 3:6:7 (iv) 5:6:7 (v) 4:6:7
29. A box contains 70 mangoes, 56 apples and 42 oranges. The ratio of mangoes and apples =
(i) 5:7 (ii) 6:4 (iii) 5:1 (iv) 5:4 (v) 4:4
30. A box contains 50 mangoes, 100 apples and 250 oranges. The ratio of mangoes to the total fruits =
(i) 1:5 (ii) 2:8 (iii) 1:11 (iv) 1:8 (v) 0:8
31. A box contains 47 pens and 188 pencils. The ratio of all stationary items in the box =
(i) 1:2 (ii) 1:4 (iii) 2:4 (iv) 0:4 (v) 1:6
32. A box contains 72 pens and 60 pencils. The ratio of pens to the total stationary items =
(i) 6:11 (ii) 6:13 (iii) 5:11 (iv) 7:11 (v) 6:8
33. A box contains 210 pens and 60 pencils. The ratio of pencils to the total stationary items =
(i) 2:12 (ii) 2:7 (iii) 1:9 (iv) 3:9 (v) 2:9

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

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