

Ratio and Proportion

GCSE Mathematics • **Foundation Tier** • Grades 4–5 • Non-calculator

Name:

Class:

Total: / 58

Show all your working. Marks are given for correct method as well as the final answer.

1. Simplify the ratio 12 : 18. [2 marks]

Answer:

2. Simplify the ratio 45 : 30 : 15. [2 marks]

Answer:

3. Write 2 : 5 in the form 1 : n . [2 marks]

Answer:

4. Share £60 in the ratio 2 : 3. [3 marks]

Answer:

Answer:

5. Share 180 sweets in the ratio 4 : 5. [3 marks]

Answer:

Answer:

6. Share £840 in the ratio 1 : 2 : 4. [3 marks]

Answer:

Answer:

7. Two numbers are in the ratio 3 : 7. The smaller is 21. Work out the larger. [2 marks]

Answer:

8. In a class the ratio of boys to girls is 5 : 4. There are 20 boys. Work out the total number of students. [3 marks]

Answer:

9. Two numbers are in the ratio 2 : 9. Their difference is 35. Work out both numbers. [3 marks]

Answer:

10. Amy and Ben share money in the ratio 5 : 3. Amy gets £18 more than Ben. Work out the total shared. [3 marks]

Answer:

11. In a bag the ratio of red to blue counters is 3 : 5. What fraction of the counters are red? [2 marks]

Answer:

12. $\frac{2}{7}$ of a class are left-handed. Write the ratio of left-handed to right-handed students. [2 marks]

Answer:

13. $a : b = 2 : 3$ and $b : c = 6 : 7$. Work out $a : b : c$. [3 marks]

Answer:

14. 5 pens cost £3.50. Work out the cost of 8 pens. [3 marks]

Answer:

15. A recipe for 4 people uses 300 g of rice. Work out the amount needed for 10 people. [3 marks]

Answer: g

16. 3 workers build a wall in 8 days. How long would 6 workers take, working at the same rate? [3 marks]

Answer:

17. 400 g of cheese costs £3.20. Work out the cost of 250 g.

[3 marks]

Answer:

18. Shop A sells 6 eggs for £1.50. Shop B sells 10 eggs for £2.30. Which is better value? Show working.
[3 marks]

Answer:

19. A recipe for 6 muffins uses 240 g flour and 3 eggs.

(a) Work out the flour needed for 15 muffins.

[3 marks]

(b) Explain why you cannot make exactly 15 muffins with 7 eggs.

[2 marks]

Answer:

20. Red and white paint are mixed in the ratio 3 : 2. Sam needs 20 litres of the mixture.

(a) Work out how much red paint he needs.

[3 marks]

(b) Red paint comes in 5 litre tins. How many must he buy?

[2 marks]

Answer: