



THIRD SPACE
LEARNING

GCSE Exam Questions

Ratio Problem Solving | Ratio &
Proportion

GCSE Exam Questions: Ratio Problem Solving

- 1) Given that $a : b = 4 : 5$ and $b : c = 3 : 2$.

Find the ratio $a : b : c$.

Give your answer in its simplest form.

(2 marks)

- 2) Alex, Betty and Claire share £66.

The amount Alex and Betty get is in the ratio 9 : 5

The amount Betty and Claire get is in the ratio 2 : 1

How much does Alex get?

(4 marks)

GCSE Exam Questions: Ratio Problem Solving

- 3) Laura and Michelle share a sum of money in the ratio 2 : 7.

Michelle gets £30 more than Laura.

Calculate how much money was shared in total.

(3 marks)

- 4) At the theatre the ratio of men to women is 5 : 3.

The ratio of women to children is 7 : 4

Show that more than half the people at the concert are men.

(3 marks)

GCSE Exam Questions: Ratio Problem Solving

- 5) The points A, B, C and D lie in order on a straight line.

$$AB:BD = 2:7 \text{ and } AC:CD = 5:3$$

Find $AB:BC:CD$

(3 marks)

GCSE Exam Questions: Ratio Problem Solving Answers

	Question	Answer	Marks
1)	Given that $a : b = 4 : 5$ and $b : c = 3 : 2$, Find the ratio $a : b : c$. Give your answer in its simplest form.	$a : b = 12 : 15$ or $b : c = 15 : 10$ $12 : 15 : 10$	(1) (1)
2)	Alex, Betty and Claire share £66. The amount Alex and Betty get is in the ratio 9 : 5. The amount Betty and Claire get is in the ratio 2 : 1. How much does Alex get?	$Alex : Betty = 18 : 10$ or $Betty : Claire = 10 : 5$ $18 + 10 + 5 = 33$ $66 \div 2$ or 18×2 £36	(1) (1) (1) (1)
3)	Laura and Michelle share a sum of money in the ratio 2 : 7. Michelle gets £30 more than Laura. Calculate how much money was shared in total.	$5 \text{ parts} = £30$ $12 : 42$ £54	(1) (1) (1)
4)	At the theatre the ratio of men to women is 5 : 3. The ratio of women to children is 7 : 4. Show that more than half the people at the concert are men.	$men : women : children = 35 : 21 : 12$ $35 + 21 + 12 = 68$ $68 \div 2 = 34$	(1) (1) (1)
5)	The points A, B, C and D lie in order on a straight line. $AB:BD = 2:7$ and $AC:CD = 5:3$. Find $AB:BC:CD$	$2 + 7 = 9$ and $5 + 3 = 8$ $AB = 2 \times 8 = 16$ and $CD = 3 \times 9 = 27$ $AB:BC:CD = 16 : 29 : 27$	(1) (1) (1)

Where to go next?

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