

Ratio and Proportion

ANSWERS

Calculator | 30 minutes | Total marks: 25

Name Class

- 1 (a) A bag has 3 red counters and 5 blue counters.

Write down the ratio of red counters to blue counters.

Answer 3 : 5 (1) [1 mark]

- (b) Simplify the ratio 12 : 18

Answer 2 : 3 (1) [1 mark]

- (c) Simplify the ratio 20 : 30 : 50

Answer 2 : 3 : 5 (1) [1 mark]

- (d) Simplify the ratio 2 m : 50 cm

200 : 50 (1)

Answer 4 : 1 (1) [2 marks]

- 2 Share £40 in the ratio 3 : 5

40 ÷ 8 = 5 (1)

Answer £15 and £25 (1) [2 marks]

- 3 The ratio of cats to dogs at a rescue centre is 2 : 3

There are 12 cats.

Work out the number of dogs.

12 ÷ 2 = 6 (1)

Answer 18 (1) [2 marks]

4

The ratio of boys to girls in a club is 3 : 7

What fraction of the club are boys?

Answer $\frac{3}{10}$ (1)

[1 mark]

5

£1 = €1.20

(a) Change £50 into euros.

Answer € 60 (1)

[1 mark]

(b) Change €36 into pounds.

$36 \div 1.20$ (1)

Answer £ 30 (1)

[2 marks]

6

Change

(a) 3.5 metres into centimetres

Answer 350 (1)

cm

[1 mark]

(b) 2500 grams into kilograms

Answer 2.5 (1)

kg

[1 mark]

7

Here are the ingredients for a risotto for 4 people.

Complete the table for 6 people.

Ingredient	4 people	6 people
Rice	300 g	450 g (1)
Onions	2	3 (1)
Stock	500 ml	750 ml (1)

[3 marks]

8

A shop sells bread rolls in two sizes of pack.

A pack of 3 costs £1.50

A pack of 5 costs £2.25

Which pack is better value?

You **must** show your working.

$$150 \div 3 = 50p \text{ for each roll (1)}$$

$$225 \div 5 = 45p \text{ for each roll (1)}$$

Answer the pack of 5 (1)

[3 marks]

9

On a map, 1 cm represents 5 km.

(a) Two towns are 4 cm apart on the map.

What is the actual distance between the towns?

Answer 20 (1)

km

[1 mark]

(b) A river is 35 km long.

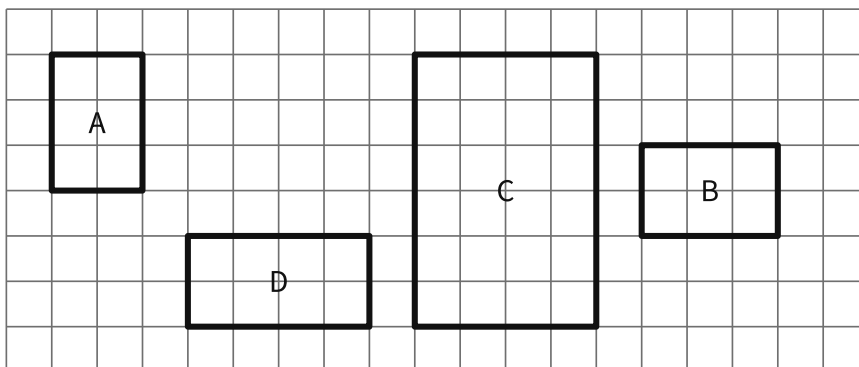
How long is the river on the map?

Answer 7 (1)

cm

[1 mark]

10 Here are four rectangles on a square grid.



(a) Which rectangle is congruent to rectangle A?

Answer B (1) [1 mark]

(b) Which rectangle is similar to rectangle A but not congruent to it?

Answer C (1) [1 mark]

Question	Topic	RAG
1	I can write and simplify ratios	
2	I can share an amount in a ratio	
3	I can solve a ratio problem	
4	I can change a ratio into a fraction	
5	I can convert between currencies	
6	I can convert units of measure	
7	I can scale a recipe	
8	I can find the better value	
9	I can use a map scale	
10	I can recognise congruent and similar shapes	