

Ratio

Question Paper 1

Level	OCR
Subject	Maths
Exam Board	GCSE (9-1)
Topic	Ratio, Proportion and Rates of Change
Sub Topic	Ratio
Grade Level	Grade 3
Booklet	Question Paper 1

Time Allowed: 50 minutes

Score: /41

Percentage: /100

1 (a) Express the ratio 5 : 7 in the form 1 : n .

(a) [1]

(b) Express this ratio in its simplest form.

56 minutes : 2 hours

(b) [3]

- 2 Debi makes Chocolate Courgette Cake.
Her recipe uses 480 g of grated courgettes.
The total weight of the other ingredients is 1.1 kg.

- (a) Find the ratio of the weight of grated courgettes to the total weight of the other ingredients.
Give your answer in its simplest form.

(a) _____ : _____ [3]

- (b) Debi wants to make a larger Chocolate Courgette Cake.
She wants to use 600 g of grated courgettes.

Calculate the total weight of the other ingredients that she will need to use.
Give the units of your answer.

(b) _____ [3]

3 Work out.

$$1\frac{2}{3} \div 1\frac{3}{4}$$

[3]

- 4 (a) Joe and Pam planted crocus bulbs in their gardens.
They shared a bag of 250 crocus bulbs.
The table shows the colour of the flower from each bulb.

	Yellow	Purple	White	Totals
Joe	64	40		125
Pam	56		32	125
Totals	120			250

- (i) Complete the table.

[3]

- (ii) Write the ratio 64 : 56 as simply as possible.

(a)(ii) _____ [1]

- (b) Sumita bought a pack of 60 crocus bulbs which produced Yellow, Purple or White flowers.
The ratio Yellow : Purple : White was 7 : 5 : 3.

How many of the 60 bulbs produced White flowers?

(b) _____ [3]

- 5 (a) Debi makes bread.
She always uses brown flour and white flour in the ratio 2 : 1.

(i) For a medium loaf of bread she needs 420g of flour altogether.

How much brown flour does she need for a medium loaf?

(a)(i) _____ g [2]

(ii) For a large loaf she uses 360g of brown flour.

How much flour does she use altogether for a large loaf?

(ii) _____ g [2]

- (b) Tim makes a medium loaf using wholemeal flour and white flour.
He uses 260g of wholemeal flour and 160g of white flour.

Write the ratio

wholemeal flour : white flour

that Tim uses.

Give your answer in its simplest form.

(b) _____ [2]

6 Sonja and Ben are gymnasts.

(a) On Tuesday Sonja practised for 40 minutes and Ben practised for 48 minutes.

Write the ratio of Sonja's practice time to Ben's practice time.
Give your answer in its simplest form.

(a) _____ [2]

(b) On Wednesday they spent a total of 140 minutes practising.
The ratio of Sonja's time to Ben's time was 4 : 3.

Work out how long they each spent practising on Wednesday.

(b) Sonja _____ minutes

Ben _____ minutes [2]

7 Samira and Joanne share their living costs in the ratio 3 : 2.

(a) The rent for their flat for a month is £700.

Work out how much of this rent they each pay.

(a) Samira £

Joanne £ [3]

(b) For one gas bill, Joanne pays £84 for her share.

How much was the whole gas bill?

(b) £ [3]

8 Caroline and Helen share a job in the ratio 3 : 2.

(a) Caroline works for 24 hours a week.

Calculate how many hours a week Helen works.

(a) hours **[2]**

(b) The annual pay for the whole job is £26 000.

Work out the annual pay for Caroline and for Helen.

(b) Caroline £

Helen £ **[3]**