

Writing and Simplifying Ratios

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **20**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** A florist has 56 roses and 42 lilies.
Write down the ratio of the number of lilies to the number of roses.
Give your ratio in its simplest form.

.....
(2)

(Total for Question 1 is 2 marks)

- 2** (a) Write the ratio 9 : 4 in the form $n : 1$

.....
(1)

- (b) Write the ratio 8 : 28 in the form $1 : n$

.....
(1)

(Total for Question 2 is 2 marks)

- 3** 65% of the area of a garden is lawn.
The rest of the garden is flower beds.
Write down the ratio of the area of lawn to the area of flower beds.
Give your ratio in its simplest form.

.....
(2)

(Total for Question 3 is 2 marks)

- 4** Write the ratio 3.6 : 0.8 in the form $n : 1$

.....
(1)

(Total for Question 4 is 1 mark)

- 5** A builders' yard has 2250 red bricks, 1350 grey bricks and 900 yellow bricks.
Write down the ratio of the number of red bricks to the number of grey bricks to the number of yellow bricks.
Give your ratio in its simplest form.

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(2)

(Total for Question 5 is 2 marks)

- 6** A theatre has 150 seats.
For one show, 90 of the seats are taken.

Write down the ratio of the number of empty seats to the total number of seats.
Give your answer in its simplest form.

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(2)

(Total for Question 6 is 2 marks)

- 7** Amir, Beth and Cal go running.
Amir runs 800 m.
Beth runs 2.4 km.
Cal runs half as far as Beth.

Find the ratio of the distance Amir runs to the distance Beth runs to the distance Cal runs.
Give your answer in its simplest form.

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(2)

(Total for Question 7 is 2 marks)

- 8** A shop has 72 mugs.
Each mug is either plain or patterned.
The ratio of the number of plain mugs to the number of patterned mugs is 1 : 2
The shop sells 6 plain mugs and 18 patterned mugs.
- Find the ratio of the number of plain mugs to the number of patterned mugs left in the shop.
Give your answer in its simplest form.

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(3)

(Total for Question 8 is 3 marks)

- 9** A photo album has 96 photos.
36 of the photos are in colour. The rest are black and white.
Nell says,
 'The ratio of colour photos to black and white photos is 3 : 8'
- Is Nell correct?
You must show how you get your answer.

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(2)

(Total for Question 9 is 2 marks)

- 10** A bakery sells only wholemeal loaves and white loaves.
On Monday, $\frac{2}{7}$ of the loaves it sells are wholemeal.

Write down the ratio of the number of wholemeal loaves sold on Monday to the number of white loaves sold on Monday.

Give your answer in the form $1 : n$

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(2)

(Total for Question 10 is 2 marks)
