

Writing and Simplifying Ratios

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **21**

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

- 1** Which ratio is equivalent to $4 : 7$?
Circle your answer.

[1 mark]

8 : 11

12 : 21

20 : 49

7 : 4

- 2** (a) Simplify fully $28 : 42$

[1 mark]

Answer _____

- (b) Simplify fully $16 : 40 : 24$

[1 mark]

Answer _____

- 3** (a) Write the ratio $6 : 2$ in the form $n : 1$

[1 mark]

Answer _____

- (b) Write the ratio $7 : 4$ in the form $n : 1$

[1 mark]

Answer _____

- 4** Write the ratio $2 : 5$ in the form $1 : n$

[1 mark]

Answer _____

- 5** Write the ratio $250 \text{ g} : 2 \text{ kg}$ in its simplest form.

[2 marks]

Answer _____

- 6** Every seat on a bus is either taken or empty.
Three eighths of the seats are empty.
Work out the ratio taken seats : empty seats
Circle your answer.

[1 mark]

3 : 5

5 : 3

3 : 8

5 : 8

- 7 Tomasz has 56 songs on a playlist.
21 are pop songs, 14 are rock songs and the rest are dance songs.

Work out the ratio pop : rock : dance
Give your answer in its simplest form.

[2 marks]

Answer _____

- 8 A cinema sells adult tickets and child tickets.
On Saturday it sells 240 tickets.
Five twelfths of Saturday's tickets are child tickets.
On Sunday it sells 160 tickets.
60 of Sunday's tickets are child tickets.

Work out the ratio adult tickets : child tickets
for the two days altogether.
Give your answer in its simplest form.

[3 marks]

Answer _____

- 9 Which ratio is **not** equivalent to 5 : 3 ?
Tick **one** box.

[1 mark]

☐ 1 : 0.6

☐ 10 : 6

☐ 2.5 : 1.5

☐ 3 : 5

- 10** A shop sells rice in small bags and large bags.

A small bag costs £1.35

A large bag costs £3.15

Work out the ratio price of small bag : price of large bag

Give your answer in its simplest form.

[2 marks]

Answer _____

- 11** Write the ratio 45 minutes : 2 hours in its simplest form.

[2 marks]

Answer _____

- 12** Jay says,

‘The ratio 40 cm : 2 m simplifies to 20 : 1’

Is Jay correct?

Tick a box.

Show working to support your answer.

[2 marks]

☐ Yes

☐ No