



ACHIEVE ACADEMY

GCSE Maths — Foundation Tier

Ratio · Practice Booklet

NAME: _____

CLASS: _____

DATE: _____

☐ Developing

☒ Secure

☐ Greater Depth

Answer every question in the working space provided. Method marks are available for correct working even if the final answer is wrong. Check the time allowed with your tutor before you start.

Ratio

Total marks available: 94

● Ratio

✓ £120

Q1 · ● Developing · 3 marks

METHOD

Total parts = $7 + 8 = 15$
 $£225 \div 15 = £15$ per part
Shares: £105 and £120

✓ £126

Q2 · ● Developing · 3 marks

METHOD

Total parts = $2 + 9 = 11$
 $£154 \div 11 = £14$ per part
Shares: £28 and £126

✓ 5:8

Q3 · ● Developing · 2 marks

METHOD

HCF of 30 and 48 is 6
 $30 \div 6 : 48 \div 6 = 5:8$

✓ £65

Q4 · ● Developing · 3 marks

METHOD

Total parts = $6 + 5 = 11$
 $£143 \div 11 = £13$ per part
Shares: £78 and £65

✓£60

Q5 · ● Developing · 3 marks

METHOD

Total parts = $4 + 9 = 13$
 $£195 \div 13 = £15$ per part
Shares: £60 and £135

✓£135

Q6 · ● Developing · 3 marks

METHOD

Total parts = $2 + 9 = 11$
 $£165 \div 11 = £15$ per part
Shares: £30 and £135

✓7:6

Q7 · ● Developing · 2 marks

METHOD

HCF of 35 and 30 is 5
 $35 \div 5 : 30 \div 5 = 7:6$

✓£33

Q8 · ● Developing · 3 marks

METHOD

Total parts = $8 + 3 = 11$
 $£121 \div 11 = £11$ per part
Shares: £88 and £33

✓5:7

Q9 · ● Developing · 2 marks

METHOD

HCF of 35 and 49 is 7
 $35 \div 7 : 49 \div 7 = 5:7$

✓£112

Q10 · ● Developing · 3 marks

METHOD

Total parts = $5 + 8 = 13$

$£182 \div 13 = £14$ per part

Shares: £70 and £112

✓8

Q11 · ● Secure · 3 marks

METHOD

3 parts = 6, so 1 part = $6 \div 3 = 2$

Total parts = $3 + 1 = 4$

Total = $4 \times 2 = 8$

✓14

Q12 · ● Secure · 3 marks

METHOD

$16 \div 8 = 2$

$b = 7 \times 2 = 14$

✓14

Q13 · ● Secure · 3 marks

METHOD

$63 \div 9 = 7$

$b = 2 \times 7 = 14$

✓24

Q14 · ● Secure · 3 marks

METHOD

$15 \div 5 = 3$

$b = 8 \times 3 = 24$

✓48

Q15 · ● Secure · 3 marks

METHOD

$$54 \div 9 = 6$$

$$b = 8 \times 6 = 48$$

✓60

Q16 · ● Secure · 3 marks

METHOD

$$72 \div 6 = 12$$

$$b = 5 \times 12 = 60$$

✓6

Q17 · ● Secure · 3 marks

METHOD

$$1 \text{ parts} = 2, \text{ so } 1 \text{ part} = 2 \div 1 = 2$$

$$\text{Total parts} = 1 + 2 = 3$$

$$\text{Total} = 3 \times 2 = 6$$

✓16

Q18 · ● Secure · 3 marks

METHOD

$$5 \text{ parts} = 10, \text{ so } 1 \text{ part} = 10 \div 5 = 2$$

$$\text{Total parts} = 5 + 3 = 8$$

$$\text{Total} = 8 \times 2 = 16$$

✓21

Q19 · ● Secure · 3 marks

METHOD

$$27 \div 9 = 3$$

$$b = 7 \times 3 = 21$$

✓35

Q20 · ● Secure · 3 marks

METHOD

$$28 \div 4 = 7$$

$$b = 5 \times 7 = 35$$

✓(a) 80 g (b) 110 g

Q21 · ● Greater Depth · 3 marks

METHOD

3 parts = 30 g, so 1 part = $30 \div 3 = 10$ g

(a) Sugar = $8 \times 10 = 80$ g

(b) Total = $30 + 80 = 110$ g

✓£24

Q22 · ● Greater Depth · 4 marks

METHOD

Total parts = 14

$£112 \div 14 = £8$ per part

Shares: £48, £24, £40

Difference = $£48 - £24 = £24$

✓£16

Q23 · ● Greater Depth · 4 marks

METHOD

Total parts = 6

$£48 \div 6 = £8$ per part

Shares: £16, £24, £8

Difference = $£24 - £8 = £16$

✓£40

Q24 · ● Greater Depth · 4 marks

METHOD

Total parts = 12

$£96 \div 12 = £8$ per part

Shares: £48, £40, £8

Difference = $£48 - £8 = £40$

✓£8

Q25 · ● Greater Depth · 4 marks

METHOD

Total parts = 6

$£24 \div 6 = £4$ per part

Shares: £12, £8, £4

Difference = $£12 - £4 = £8$

✓£44

Q26 · ● Greater Depth · 4 marks

METHOD

Total parts = 13

$£143 \div 13 = £11$ per part

Shares: £55, £22, £66

Difference = $£66 - £22 = £44$

✓(a) 60 g (b) 210 g

Q27 · ● Greater Depth · 3 marks

METHOD

5 parts = 150 g, so 1 part = $150 \div 5 = 30$ g

(a) Sugar = $2 \times 30 = 60$ g

(b) Total = $150 + 60 = 210$ g

✓(a) 100 g (b) 275 g

Q28 · ● Greater Depth · 3 marks

METHOD

7 parts = 175 g, so 1 part = $175 \div 7 = 25$ g

(a) Sugar = $4 \times 25 = 100$ g

(b) Total = $175 + 100 = 275$ g

✓£28

Q29 · ● Greater Depth · 4 marks

METHOD

Total parts = 10

$£70 \div 10 = £7$ per part

Shares: £35, £28, £7

Difference = $£35 - £7 = £28$

✓£10

Q30 · ● Greater Depth · 4 marks

METHOD

Total parts = 6

$£30 \div 6 = £5$ per part

Shares: £15, £5, £10

Difference = $£15 - £5 = £10$