2.19-2 Speed Drills: Ratio, Proportion and Scaling Set 2: 30-minute Pack

Total Marks

GL ASSESSMENT EP.M92 · Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

A timed speed-drill pack for building fast, accurate ratio and proportion skills - the fluency with simplifying ratios, sharing amounts fairly and scaling recipes and prices that keeps working quick enough for the real GL Assessment 11+ maths paper. This is the second set in the series, with a fresh set of numbers and contexts throughout. Complete each block against its own 5-minute target without a calculator, writing only the final answer in the answer grid provided; no working space is given or needed. There are 4 blocks of 20 one-mark, answer-only questions: Block 1, simplifying ratios and finding equivalent ratios; Block 2, sharing an amount in a given ratio; Block 3, the unitary method and scaling recipes; Block 4, a mixed speed round including quick best-buy comparisons. Each block carries its own Target: 5 minutes heading; time yourself (or ask an adult to time you) and note how close you get to the target on each block.

1 Share 21 badges between Ken and Mia in the ratio 1 : 2. Find how many badges Mia gets.

(1)

2 Share 72 counters between Wesley and Dina in the ratio 5 : 4. Find how many counters Wesley gets.

(1)

3 120 g of icing sugar is shared between two cakes in the ratio 3 : 5. Find the mass of the larger share.

(1)

4 Share £90 between Sian, Bilal and Grace in the ratio 2 : 3 : 4. Find how much Bilal gets.

(1)

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5 Two numbers are in the ratio 2 : 5 and their sum is 84. Find the smaller number.

(1)

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6 Simplify the ratio 8 : 12 to its simplest form.

(1)

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7 Share £91 between Rhys and Anya in the ratio 3 : 10. Find how much more Anya gets than Rhys.

(1)

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8 189 counters are shared between three players in the ratio 6 : 7 : 8. Find the size of the middle share.

(1)

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9 A fruit drink of 4.5 litres is made from squash and water in the ratio 1 : 8. Find how many litres of water it contains.

(1)

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10 91 kg of flour is shared between two bakeries in the ratio 9 : 4. Find how much the smaller bakery receives.

(1)

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11 A journey of 182 km is split into two legs in the ratio 3 : 10. Find the length of the shorter leg.

(1)

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12 Share £70 between three charities in the ratio 1 : 2 : 4. Find how much the charity with the smallest share receives.

(1)

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13 The angles of a triangle are in the ratio 3 : 4 : 5. Find the size of the largest angle.

(1)

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14 Two amounts are shared in the ratio 4 : 9. The smaller amount is £72. Find the total amount shared.

(1)

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15 Simplify the ratio 14 : 21 to its simplest form.

(1)

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16 Three sisters share a bonus in the ratio 2 : 4 : 7. The eldest receives £45 more than the youngest. Find the total bonus shared.

(1)

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17 Block 3: Unitary method and recipe scaling - Target: 5 minutes. 4 pens cost £8. Find the cost of 1 pen.

(1)

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18 6 identical books cost £24. Find the cost of 2 books.

(1)

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19 A recipe for 4 people uses 200 g of butter. Find how much butter is needed for 10 people.

(1)

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20 9 identical tickets cost £72. Find the cost of 4 tickets.

(1)

---

21 10 metres of fabric cost £60. Find the cost of 7 metres.

(1)

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22 A car travels 84 km using 6 litres of fuel. Find how far it can travel on 9 litres.

(1)

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23 A recipe for 4 people uses 200 g of pasta. Find how much pasta is needed for 11 people.

(1)

---

24 Simplify the ratio 10 : 25 to its simplest form.

(1)

---

25 A job needs 60 worker-hours shared equally between 5 workers. Find how many hours each worker puts in.

(1)

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26 A recipe for 6 people uses 3 eggs. Find how many eggs are needed for 18 people.

(1)

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27 6 identical calculators cost £90. Find the cost of 8 calculators.

(1)

---

28 A printer prints 63 pages in 7 minutes. Find how many pages it prints in 4 minutes.

(1)

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29 A recipe for 8 people uses 800 ml of stock. Find how much stock is needed for 5 people.

(1)

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30 5 identical chairs cost £85. Find the cost of 8 chairs.

(1)

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31 A recipe for 4 people uses 280 g of flour. Zain wants to make enough for 9 people. Find how many grams of flour he needs.

(1)

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32 12 identical exercise books cost £30. Find the cost of 20 such books.

(1)

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Mark scheme · 2.19-2 Speed Drills: Ratio, Proportion and Scaling Set 2: 30-minute Pack

Question 1

14 cao **B1**

Answer: 14

Question 2

40 cao **B1**

Answer: 40

Question 3

75 g cao **B1**

Answer: 75 g

Question 4

£30 cao **B1**

Answer: £30

Question 5

24 cao **B1**

Answer: 24

Question 6

2 : 3 cao **B1**

Answer: 2 : 3

Question 7

£49 cao **B1**

Answer: £49

Question 8

63 cao **B1**

Answer: 63

Question 9

4 litres cao **B1**

Answer: 4 litres

Question 10

28 kg cao **B1**

Answer: 28 kg

Question 11

42 km cao **B1**

Answer: 42 km

Question 12

£10 cao **B1**

Answer: £10

Question 13

75 degrees cao **B1**

Answer: 75 degrees

Question 14

£234 cao **B1**

Answer: £234

Question 15

2 : 3 cao **B1**

Answer: 2 : 3

Question 16

£117 cao **B1**

Answer: £117

Question 17

£2 cao **B1**

Answer: £2

Question 18

£8 cao **B1**

Answer: £8

Question 19

500 g cao **B1**

Answer: 500 g

Question 20

£32 cao **B1**

Answer: £32

Question 21

£42 cao **B1**

Answer: £42

Question 22

126 km cao **B1**

Answer: 126 km

Question 23

550 g cao **B1**

Answer: 550 g

Question 24

2 : 5 cao **B1**

Answer: 2 : 5

Question 25

12 hours cao **B1**

Answer: 12 hours

Question 26

9 eggs cao **B1**

Answer: 9 eggs

Question 27

£120 cao **B1**

Answer: £120

Question 28

36 pages cao **B1**

Answer: 36 pages

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Question 29

500 ml cao **B1**

Answer: 500 ml

Question 30

£136 cao **B1**

Answer: £136

Question 31

630 g cao **B1**

Answer: 630 g

Question 32

£50 cao **B1**

Answer: £50

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