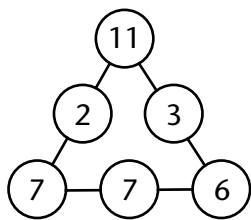## Pages 4–5 Place value

1 a Emily **b** 120, 106, 93, 89 *(1 mark for correct numbers in wrong order)*

2 a 299 **b** 2.1

3 a 954, 945, 594 or 549 **b** 165 or 561 **c** 514, 516, 546, 564, 594, 596 or 614

4 a Eight thousand and seven **b** 1993

5 a 19 **b** 1.25

6 a 99 **b** 7 (70)

7 6.8, 6.9, 7.0, 7.1 *(1 mark for three correct)*

Pages 6–7 The four rules

1 a 63 **b** 21

2 a 813 **b** 189

3 a 302 *(1 mark for 124)* **b** 195 *(1 mark for 470)*

4 a 163 **b** 297 **c** 740 **d** 111

5

(1 mark if two correct)

6 a £3.15 **b** 24

7 a 18 **b** 19 **c** 34 **d** 555

8 a £9000 **b** £500

9 a 120 **b** 18p

Pages 8–9 Decimals

1 a 1.1 **b** 1.4 **c** 8.17 **d** 19.84

2 a £2.35 **b** 55p

3 a 3.8 or 3.5 **b** 0.3

4 0.1, 1.23, 2.3, 3.21

5 a £3.45 **b** 50p

6 a 40.3 km **b** 5.1 km

7 b < **c** = **d** <

8 b 4.8 **c** 2.7 **d** 0.6

MATHS WORKBOOK 3–6

Pages 10–11 Long multiplication and division

Questions worth 2 marks get full marks for a correct answer and 1 mark for correct working with one error. For example, 27 x 32 = 20 x 32 + 7 x 32 = 640 + 214 = 754 would get 1 mark. (The correct answer is 640 + 224 = 764.)

1 a 864   **b** 7812   **c** 34   **d** 71

2 a 816   **b i** 20   **ii** 40

3 a 1196   **b** 19

4 a 360   **b i** 19   **ii** Yes, 19 x 15 – 272 = 13

5 a £2200   **b** £1300   **c** 15

6 19

7 30

Pages 12–13 Rounding and approximation

1 a 370   **b** 400

2 a 4560   **b** 4600   **c** 5000

3 a 5.7   **b** 5.69

4 a 3000   **b** 6   **c** 200   **d** 0.08

5 a About 3 m   **b** About 11 m

6 a 50 x 10 = 500   **b** 200 ÷ 40 = 5   *(1 mark for correct rounding)*

7 a $\dfrac{200 + 400}{20 + 10} = \dfrac{600}{30} = 20$ **b** $\dfrac{30 \times 60}{20} = 30 \times 3 = 90$ *(1 mark for correct rounding)*

8 a 95   **b** 104

9 a Cards are between $7\frac{1}{2}$ and $8\frac{1}{2}$ cm wide.   **b** $6\frac{1}{2}$ cm
   c Biggest possible card will fit in smallest possible envelope.

Pages 14–15 Multiplying and dividing decimals

1 a 0   **b** 560

2 a 3400 mm   **b** 0.074 m

3 a 0.5   **b** 0.23   **c** 0.006   **d** 100

4 a £68.40   **b** £11.90

5 £37 + £35 + £9 = £81

6 £106.72   *(1 mark for £26.97 or £79.75)*

7 £65

8 a 32.2   **b** 5.9   **c** 41.6   **d** 8.3

9 £42.80

MATHS WORKBOOK 3–6

Number answers

Pages 16–17 Negative numbers

1 a Mars **b** Mercury **c** 710–730 °C

2 a –2 **b** –7 + –6 + –2 = –15 **c** –7 x 8 = –56

3 a 68 °F **b** –40 °F **c** –20 °C

4 b < **c** = **d** =

5 a –11 **b** 11 **c** –4 **d** 42

6 a Any valid answer, e.g. –3 + –2 **b** Any valid answer, e.g. –7 – –2

7 a –14 **b** +7 **c** –7, 3

Pages 18–19 Adding and subtracting fractions

1 a £8.25 **b** $\frac{3}{4}$ **c** £8 **d** £32

2 200 125 $\frac{1}{5}$ $\frac{2}{3}$

3 a 1 **b** 21

4 a 17 **b** 10

5 a $\frac{11}{15}$ *(1 mark for $\frac{5}{15}$ or $\frac{6}{15}$)* **b** $\frac{7}{20}$ *(1 mark for $\frac{12}{20}$ or $\frac{5}{20}$)*

6 a $5\frac{9}{20}$ *(1 mark for $\frac{9}{4} + \frac{16}{15}$)* **b** $1\frac{5}{12}$ *(1 mark for $\frac{11}{4} - \frac{4}{3}$)*

7 a $\frac{5}{12}$ *(1 mark for $\frac{20}{48}$)* **b** $\frac{7}{12}$ *(1 mark for $\frac{28}{48}$)*

Pages 20–21 Multiplying and dividing fractions

1 6

2 $\frac{11}{3}$

3 $\frac{1}{5}$

4 $\frac{ac}{bd}$

5 $\frac{1}{8}$

6 $\frac{3}{20}$

7 12

8 a 19 kg **b** $\frac{1}{6}$ **c** 19.5 kg **d** 40.5 kg

9 a $\frac{1}{15}$ **b** $1\frac{1}{4}$

10 a $2\frac{7}{10}$ **b** $\frac{2}{3}$

MATHS WORKBOOK 3–6

Number answers

Pages 22–23 Equivalent fractions, percentages and decimals

1 b 60%, 0.6   **c** $\frac{3}{4}$, 0.75   **d** $\frac{9}{10}$, 90%

2 a i 6 **ii** 48%   **b** Any valid answers, e.g. 2 out of 10, 4 out of 20

3 a 20%   **b** 40%

4 a $\frac{2}{5}$ **b** 40%

5 a 25%   **b** $\frac{3}{8}$ **c** You cannot tell.

Pages 24–25 Percentages

1 a 14%   **b** Fish cakes   **c** Salad   **d** 6 out of 20 (30%) is more than 6 out of 30 (20%)
   e Fish cakes (10% of each)

2 a £48   **b** £25.60   **c** £72 (10% off £80)

3 a South America   **b** 13.3%

4 a 12.5%   **b** 880 acres *(1 mark for 330 ÷ 3 = 110)*
   c Increase. Crops will be 50%, cattle will be $33\frac{2}{3}$ %, so fallow land will be $16\frac{1}{3}$ %.

Pages 26–27 Ratio

1 a 2 : 3   **b** 3 : 5

2 800 g *(1 mark for 200g)*

3 Any seven squares shaded

4 a £18 : £72 *(1 mark for 90 ÷ 5)*   **b** 60 kg : 90 kg *(1 mark for 150 ÷ 5)*

5 a 175 ml *(1 mark for 25 ml)*   **b** 100 ml *(1 mark for 50 ml)*

6 a 7 : 3 *(1 mark for 28 : 12)*   **b** 13 : 3 *(1 mark for 39 : 9)*

7 a Nadia £54.75, Naseem £91.25   **b** Nadia £113.15, Naseem £178.85

8 a 3 : 5   **b** 7 : 12   **c** Small bottle *(1 mark for 3 ÷ 7 or 5 ÷ 12)*