Answers to Scholastic National Curriculum Maths Practice Book for Year 6

The answers are given below. They are referenced by page number and where applicable, question number.

The answers usually only include the information the children are expected to give.

There may be some places where the answers vary or multiple answers are acceptable, these are marked as such.

Page number	Question number	Answers
6–7	1a	601
	1b	4009
	1c	20,603
	1d	1,620,491
	1e	407,107
	1f	26,300
	1g	300,000
	1h	4900
	1i	2,407,583
	1j	53,724
	1k	80,005
	1l	610
	1m	80,500
	1n	20,630
	1o	4090
	2a	Three thousand and twenty
	2b	Eight thousand, two hundred
	2c	Twenty-seven thousand, five hundred and six
	2d	Seven hundred and eight thousand and ninety
	2e	Four million, seven hundred and eighty thousand, nine hundred and nine
	3a	1275
	3b	40,089
	3c	269,700
	4a	0.3
	4b	0.05
	4c	0.012
	4d	0.8
	4e	0.2
	4f	0.23
	4g	0.2
	4h	0.4

Page number	Question number	Answers
8	1a	Answers will vary.
	1b	Answers will vary.
	1c	Answers will vary.
	2a	<
	2b	>
	2c	=
	2d	=
	2e	<
	2f	<
	3	9875, 9750, 9625, 9500, 9375, 9250, 9125
9	1a	£4300 £36,700 £843,000 £900
	1b	1000km 3000km 9000km 484,000km
	1c	50,000 miles 460,000 miles 790,000 miles 850,000 miles
	2a	85cm
	2b	444cm
	2c	790cm
	3a	1000kg
	3b	44,000kg
	3c	102,000kg
	4a	Answers will vary.
	4b	Answers will vary.
	4c	Answers will vary.
	4d	Answers will vary.
10	1a	–2
	1b	–4
	1c	–6
	1d	0, 3, 6
	1e	–2, –6, –10
	1f	6, 4, 2, 0, –1, –3
	1g	–8, –4, –2, 0, 5, 7
	1h	–8, 1, 4

Page number	Question number	Answers
11	1	4
	2a	–6
	2b	3
	2c	–4
	2d	–7
	2e	–8
	3a	12
	3b	6
	3c	16
	3d	9
	3e	5
	3f	15
	3g	6
	3h	17
	4a	<
	4b	>
	4c	>
	4d	>
	4e	>
	4f	>
12	1	60 × 60 = 3600, 70 × 70 = 4900
	2	50 × 50 = 2500, 60 × 60 = 3600, 70 × 70 = 4900, 80 × 80 = 6400, 90 × 90 = 8100, 100 × 100 = 10,000
13	1a	500,000
	1b	£2,500,000
	1c	£5,250,000
	1d	£6,500,000
	1e	445,000,000km
	2a	5,500,000
	2b	300,000
	2c	7,250,000
	3a	1,200,000
	3b	6,700,000
	3c	4,450,000
	4a	60,000
	4b	4,000,000
	4c	100
	4d	200,000
	4e	7
	4f	10,000,000

<table>
<tr><th>Page number</th><th>Question number</th><th>Answers</th></tr>
<tr><td>14</td><td>1–2</td><td>
<table>
<tr><th>Club</th><th>Ground</th><th>Capacity</th><th>Nearest 1000</th><th>Nearest 10,000</th></tr>
<tr><td>Manchester Utd</td><td>Old Trafford</td><td>75,731</td><td>76,000</td><td>80,000</td></tr>
<tr><td>Arsenal</td><td>Emirates Stadium</td><td>60,362</td><td>60,000</td><td>60,000</td></tr>
<tr><td>Newcastle Utd</td><td>St. James Park</td><td>48,707</td><td>49,000</td><td>50,000</td></tr>
<tr><td>Manchester City</td><td>Etihad Stadium</td><td>47,405</td><td>47,000</td><td>50000</td></tr>
<tr><td>Liverpool FC</td><td>Anfield</td><td>45,276</td><td>45,000</td><td>50,000</td></tr>
<tr><td>Aston Villa</td><td>Villa Park</td><td>42,785</td><td>43,000</td><td>40,000</td></tr>
<tr><td>Chelsea FC</td><td>Stamford Bridge</td><td>41,798</td><td>42,000</td><td>40,000</td></tr>
<tr><td>Everton FC</td><td>Goodison Park</td><td>39,571</td><td>40,000</td><td>40,000</td></tr>
<tr><td>Tottenham Hotspur</td><td>White Hart Lane</td><td>36,284</td><td>36,000</td><td>40,000</td></tr>
<tr><td>West Ham Utd</td><td>Upton Park</td><td>35,016</td><td>35,000</td><td>40,000</td></tr>
</table>
</td></tr>
<tr><td></td><td>3</td><td>Old Trafford and Etihad = 123,000
Anfield and Stamford Bridge = 87,000
Emirates Stadium and Villa Park = 103,000
St. James Park and Old Trafford = 124,000
Goodison Park, White Hart Lane and Upton Park = 111,000</td></tr>
<tr><td>15</td><td>1</td><td>34m, 28m, 42m, 108m, 99m, 62m, 115m</td></tr>
<tr><td></td><td>2</td><td>7.5m, 9.1m, 11.3m, 12.4m, 14.3m, 15.3m, 15.7m, 17.2m</td></tr>
<tr><td>16</td><td>1</td><td>47°C</td></tr>
<tr><td></td><td>2</td><td>–21°C
39°C
60°C</td></tr>
<tr><td></td><td>3</td><td>82°C</td></tr>
</table>

Page number	Question number	Answers
17	1	**a.** David earns £7.82, spends £2.19 — In the black: ✔ — In the red:
		b. Lucy earns £3.61, spends £5.92 — In the black: — In the red: ✔
		c. Ahmed saves £8.12, spends £3.05 — In the black: ✔ — In the red:
		d. Ruth earns £5.80, spends £10.07 — In the black: — In the red: ✔
		e. Sanjay earns £0.00, spends £5.10 — In the black: — In the red: ✔
		f. Mary saves £12.00, spends £15.34 — In the black: — In the red: ✔
	2a	£14 – £25 = £–11
	2b	£–12 + £18 = £6
	2c	£–30 + £25 = £–5
	2d	£50 – £35 = £15
	2e	£48 – £54 = £–6
	2f	£–18 + £12.50 = £–5.50
18	1	2 × 32 = 64, 4 × 16, 8 × 8 = 64
	2	1 × 6.4 = 6.4, 2 × 3.2 = 6.4, 4 × 1.6 = 6.4, 8 × 0.8 = 6.4 0.1 × 64 = 6.4, 0.2 × 32 = 6.4, 0.4 × 16 = 6.4, 0.8 × 8 = 6.4 64 ÷10 = 6.4, 6.4 ÷ 2 = 3.2, 6.4 ÷ 4 = 1.6, 6.4 ÷ 8 = 0.8, 64 ÷ 6.4 = 10, 6.4 ÷ 3.2 = 2, 6.4 ÷ 1.6 = 4, 6.4 ÷0.8 = 8
	3	1 × 0.64 = 0.64, 2 × 0.32 = 0.64, 4 × 0.16 = 0.64, 8 × 0.08 = 0.64 0.64 ÷ 1 = 0.64, 0.64 ÷ 2 = 0.32, 0.64 ÷ 4 = 0.16, 0.64 ÷ 8 = 0.08
19	1	32 = 1, (2,) 4, 8, 16, 32 19 = 1, (19) 72 = 1, (2,) (3,) 4, 6, 8, 9, 12, 18, 24, 36, 72 83 = 1, (83) 53 = 1, (53) 37 = 1, (37) 41 = 1, (41) 28 = 1, (2,) 4, (7,) 14, 28 67 = 1, (67) 96 = 1, (2,) (3,) 4, 6, 8, 12, 16, 24, 32, 48, 96
	2	$48 = 3 \times 2^2 \times 2^2$ $72 = 3^2 \times 2^3$ $80 = 5 \times 2^2 \times 2^2$ $56 = 2^3 \times 7$

Page number	Question number	Answers
20	1	24 = 2, 3 42 = 2, 3, 7
	2	24 × 42 = 7 × 2 × 3^2 × 2^3 = 1008
	3	48 × 42 = 7 × 3^2 × 2^3 × 2^2 = 2016 64 × 28 = 7 × 2^3 × 2^3 × 2^2 = 1792 54 × 32 = 3^3 × 2^3 × 2^3 = 1728
21	1	4, 8, 9, 25, 27
	2	Answers will vary.
	3	Answer will vary – numbers with distinct prime factors are 32, 49.
22	1a	Because it is divisible by 2 and 3 or because it had 2 and 3 as its prime factors so is divisible by 6.
	1b	No it's 12,579
	1c	Yes because £21 × 12 = 252 so £20.99 × 12 is approximately £250
	1d	10
	1e	14
	1f	If the last 3 digits are divisible by 8, for example, 032, then it is divisible by 8 so you are not correct.
	1g	Use the inverse, for example: Add 10,779 and 31,989 to check they equal 42,768
	1h	6 × 219 = 1314 so 1308 ÷ 6 cannot be 219. (It's actually 218)
23	1a	9, (16), 18, (32), 38, (40)
	1b	6, 22, 35, (48), 53, 62
	1c	(64), 79, 82, (88), 98, 100
	2a	14, (18), 22, 25, (30), 38
	2b	(12), 19, (24), 31, (36), 44
	2c	(42), 49, (54), 62, 70, (72)
	3a	(12), 14, (21), 25, 28, (33)
	3b	(21), 29, 34, (36), 40, (48)
	3c	62, (75), 79, (84), (87), (93)
	4a	26, 38, (45), (54), 68, (72)
	4b	105, (108), (144), 158, 172, 190
	4c	426, 532, (702), 833, 920, (9783)
24–25	1a	13,932
	1b	12,292
	1c	72,286
	1d	199,875
	1e	274,400
	1f	574,209
	1g	219,146
	1h	554,904

Page number	Question number	Answers
26	1	Answers will vary, accept any reasonable estimate.
	2	Look for ideas including finding the amount of bread eaten in a year and then strategies to multiple by 25.
	3	Answers will vary, check long multiplication method used.
	4	Answers will vary.
	5	Answers will vary.
27	1a	£1524
	1b	£11,875
	1c	£47,104
	1d	£92,385
	1e	£128,100
28–29	1a	47
	1b	75
	1c	194
	1d	126
	1e	234
	1f	112
30	1a	13
	1b	30
	1c	32
	1d	11
	1e	19
31	1a	£23
	1b	£26
	1c	£14
	2a	£17
	2b	£21
	2c	£33
32–33	1a	24
	1b	34
	1c	58
	1d	65
	1e	47 $\frac{8}{16}$ or $\frac{1}{2}$
	1f	38 $\frac{8}{24}$ or $\frac{3}{4}$
	1g	47 $\frac{6}{18}$ or $\frac{1}{3}$
	1h	68 $\frac{10}{15}$ or $\frac{2}{3}$
34		Answers will vary. For example, 894 ÷ 6 = 149
35	1a	102
	1b	76
	1c	216
	1d	125
	1e	219

Page number	Question number	Answers
36	1a	1337
	1b	2888
	1c	8716
	1d	6695
	1e	2326km
	1f	5459kg
	1g	£11,142
	1h	7050ml or 7.05l
	2a	£10
	2b	6672
	2c	1,006,110
37	1a	638 + 500 – 21 = 1138 – 21 = 1117
	1b	914 + 600 – 13 = 1514 – 13 = 1501
	1c	4523 – 2800 + 9 = 1723 + 9 = 1732
	1d	3746 + 9000 – 27 = 12746 – 27 = 12,719
	2a	£5276
	2b	1744cm
	3a	283 + 558 = 283 + 600 – **30** = **853** – 12 = 841
	3b	837 – 589 = **837** – 600 + 11 = 237 + **11** = **248**
	3c	568 + **490** = 568 + 500 – 10 = **1068** – **10** = 1058
38	1a	500 + 200 + 80 + 30 + 7 + 4 = 821
	1b	600 + 100 + 60 + 40 + 8 + 2 = 810
	2a	386 + 14 + 533 = 400 + 533 = 933
	2b	584 + 16 = 600 + 327 = 927
	2c	887 + 13 + 99 = 900 + 99 = 999
	3a	(50 × 7) + (9 × 7) = 350 + 63 = 413
	3b	(79 × 10) + (70 × 7) + (9 × 7) = 790 + 490 + 63 = 1343
	3c	(96 × 10) + (90 × 9) + (6 × 9) = 960 + 810 + 54 = 1824
	3d	(70 × 6) + (8 × 6) = 420 + 48 = 468
39	1a	345
	1b	490
	1c	945
	1d	1750
	1e	1920
	1f	1936
	1g	4050
	2a	16,300
	2b	24,250
	2c	1300
	2d	1600

Page number	Question number	Answers
40	1a	11
	1b	3
	1c	12
	1d	24
	2a	2 + (4 × 3) = 14
	2b	(5 + 4) × 3 = 27
	2c	(10 – 3) × 3 = 21
	2d	(14 + 4) ÷ 2 = 9
	2e	12 ÷ (3 + 1) = 3
	2f	24 ÷ (2 + 4) = 4
	3a	(14 + 6) ÷ 5 = 4
	3b	(8 × 3) – 12 = 12
	3c	(30 ÷ 6) + 2 = 7
	3d	(3 × 2) – 4 = 2
	4a	16
	4b	3
	4c	3
	4d	47
41	1a	12m
	1b	39km
	1c	£2265
	1d	£7.68
	1e	Six hundred and fifty thousand
	1f	10
	1g	28
	1h	120
	1i	3
	2a	5 × (5 + 2) = 35
	2b	10 × (8 + 6) = 140
	2c	20 – (3 × 4) = 8
	2d	4 × (4 + 3) – 2 = 26

<table>
<tr><th>Page number</th><th>Question number</th><th>Answers</th></tr>
<tr><td rowspan="14">42</td><td>1a</td><td>27</td></tr>
<tr><td>1b</td><td>8</td></tr>
<tr><td>1c</td><td>£38</td></tr>
<tr><td>1d</td><td>(240 ÷ 3) – (12 + 44) = 24</td></tr>
<tr><td>1e</td><td>10</td></tr>
<tr><td>1f</td><td>87</td></tr>
<tr><td>1g</td><td>(83 – 18) + (33 ÷ 3) = 76</td></tr>
<tr><td>1h</td><td>2</td></tr>
<tr><td>1i</td><td>81</td></tr>
<tr><td>1j</td><td>73</td></tr>
<tr><td>1k</td><td>32</td></tr>
<tr><td>1l</td><td>(13 × 5) – 14 – 12 – 15</td></tr>
<tr><td>2a</td><td>12,050</td></tr>
<tr><td>2b</td><td>274</td></tr>
<tr><td rowspan="15">43</td><td>1a</td><td>2</td></tr>
<tr><td>1b</td><td>11</td></tr>
<tr><td>1c</td><td>58</td></tr>
<tr><td>1d</td><td>100</td></tr>
<tr><td>1e</td><td>4</td></tr>
<tr><td>1f</td><td>11</td></tr>
<tr><td>1g</td><td>9</td></tr>
<tr><td>1h</td><td>206p</td></tr>
<tr><td>1i</td><td>100</td></tr>
<tr><td>1j</td><td>19</td></tr>
<tr><td>1k</td><td>111</td></tr>
<tr><td>1l</td><td>78</td></tr>
<tr><td>2a</td><td>4500</td></tr>
<tr><td>2b</td><td>2812</td></tr>
<tr><td>2c</td><td>980</td></tr>
<tr><td>2d</td><td>75</td></tr>
<tr><td rowspan="2">44</td><td>1</td><td>
<table>
<tr><td>b.</td><td>5, 35</td><td>175</td><td>400</td><td>80</td><td>59</td></tr>
<tr><td>c.</td><td>25, 12</td><td>300</td><td>525</td><td>105</td><td>84</td></tr>
<tr><td>d.</td><td>7, 55</td><td>385</td><td>610</td><td>122</td><td>101</td></tr>
<tr><td>e.</td><td>75, 5</td><td>375</td><td>600</td><td>120</td><td>99</td></tr>
<tr><td>f.</td><td>3, 65</td><td>195</td><td>420</td><td>84</td><td>63</td></tr>
<tr><td>g.</td><td>32, 5</td><td>160</td><td>385</td><td>77</td><td>56</td></tr>
<tr><td>h.</td><td>10, 17</td><td>170</td><td>395</td><td>79</td><td>58</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>Answers will vary.</td></tr>
</table>

<table>
<tr><th>Page number</th><th>Question number</th><th>Answers</th></tr>
<tr><td rowspan="5">45</td><td>1b</td><td>180</td></tr>
<tr><td>1c</td><td>999</td></tr>
<tr><td>1d</td><td>1005</td></tr>
<tr><td>1e</td><td>21</td></tr>
<tr><td>2b–j</td><td>
<table>
<tr><td>b.</td><td>58, 84</td><td>140</td><td>120</td><td>60</td><td>300</td></tr>
<tr><td>c.</td><td>82, 78</td><td>160</td><td>140</td><td>70</td><td>350</td></tr>
<tr><td>d.</td><td>69, 81</td><td>150</td><td>130</td><td>65</td><td>325</td></tr>
<tr><td>e.</td><td>97, 93</td><td>190</td><td>170</td><td>85</td><td>425</td></tr>
<tr><td>f.</td><td>36, 48</td><td>84</td><td>64</td><td>32</td><td>160</td></tr>
<tr><td>g.</td><td>29, 35</td><td>64</td><td>44</td><td>22</td><td>110</td></tr>
<tr><td>h.</td><td>59, 17</td><td>76</td><td>56</td><td>28</td><td>140</td></tr>
<tr><td>i.</td><td>24, 68</td><td>92</td><td>72</td><td>36</td><td>180</td></tr>
<tr><td>j.</td><td>35, 27</td><td>62</td><td>42</td><td>21</td><td>105</td></tr>
</table>
</td></tr>
<tr><td>46</td><td></td><td>
<table>
<tr><th>Amount</th><th>5p</th><th>16p</th><th>23p</th><th>Workings</th></tr>
<tr><td>30p</td><td>6</td><td></td><td></td><td>6 × 5 = 30</td></tr>
<tr><td>31p</td><td>3</td><td>1</td><td></td><td>(3 × 5) + 16 = 31</td></tr>
<tr><td>32p</td><td></td><td>2</td><td></td><td>2 × 16 = 32</td></tr>
<tr><td>33p</td><td>2</td><td></td><td>1</td><td>(2 × 5) + 23 = 33</td></tr>
<tr><td>34p</td><td>-</td><td>-</td><td>-</td><td></td></tr>
<tr><td>35p</td><td>7</td><td></td><td></td><td>7 × 5 = 35</td></tr>
<tr><td>36p</td><td>4</td><td>1</td><td></td><td>(4 × 5) + 16 = 36</td></tr>
<tr><td>37p</td><td>1</td><td>2</td><td></td><td>(2 × 16) + 5 = 37</td></tr>
<tr><td>38p</td><td>3</td><td></td><td>1</td><td>(3 × 5) + 23 = 38</td></tr>
<tr><td>39p</td><td></td><td>1</td><td>1</td><td>16 + 23 = 39</td></tr>
<tr><td>40p</td><td>8</td><td></td><td></td><td>8 × 5 = 40</td></tr>
</table>
</td></tr>
<tr><td rowspan="4">47</td><td>2a</td><td>57 + 29 + 63 = 149 + Emma's cards = Answers will vary.</td></tr>
<tr><td>2b</td><td>Answers will vary. For example, Maths = 60 minutes daily so 60 × 5 = 300 minutes</td></tr>
<tr><td>2c</td><td>Answers will vary e.g. Pens = 5 so 345 ÷ 5 = 69 sheep per pen</td></tr>
<tr><td>2d</td><td>Answers will vary e.g. Swims 1000m at weekend so (5x500) + (2x1000) = 2500 + 2000 = 4500m</td></tr>
</table>

Page number	Question number	Answers
48	1a	4 × £500 = £2000
	1b	3 × £510 = £1530
	1c	5 × £320 = £1600
	1d	(2 × £250) + (3 × £320) = £1460
	2a	£1984
	2b	£1527
	2c	£1585
	2d	£1445
49	1	265, 312, 75, 98, 250
	2	5111, 4661, 2080, 1816
50	1	£77,250
	2	257.5 or 258 weeks
51	1a	No
	1b	(12 × 10) + (12 × 3) = 120 + 36 = 156
	2a	Answers will vary – actual area is 2548m²
	2b	Answers will vary.
	3a	No
	3b	You can start by doing 7 × 7, you then need to multiply it by 10 × 10 or 100 to answer 70 × 70. Molly would have the answer to 70 × 7
	4	80
	5	(40 × 40) – (18 × 22) = 1600 – 396 = 1204m
52	1	£41.32
	2	7, 10.5 l
53	1	10 rolls
	2	4 litres
	3a	6 hours 25 minutes
	3b	5 hours 5 minutes
	3c	75 minutes or 1 hour 15 minutes
	4a	£23.85
	4b	85 fruit juices, 62 pots of raisins
54	1	Word problems will vary. Answer is 224
	2	Word problems will vary. Answer is 3.35
	3	Word problems will vary. Answer is £30.31
55	1	189
	2	1245km
	3	5730g
	4	11 tanks, £506

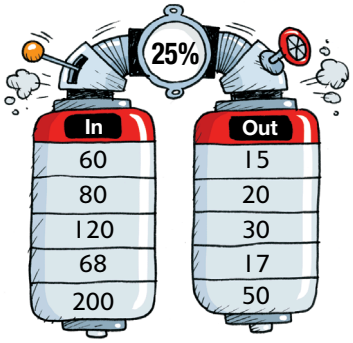
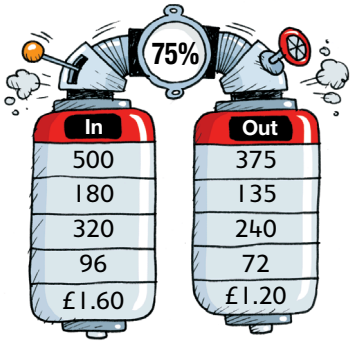
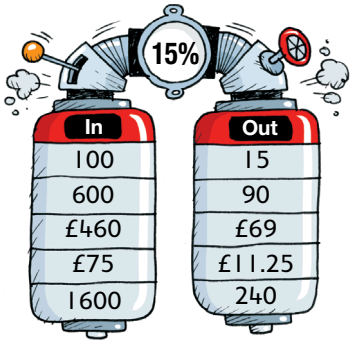
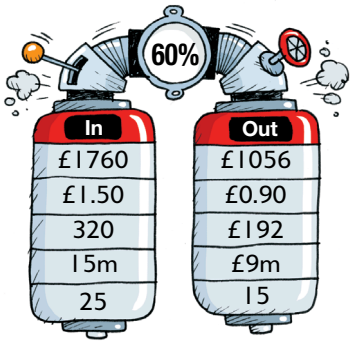
Page number	Question number	Answers
56	1a	253 + 647 900 3 + 7 = 10 so the sum must end in 0
	1b	3476 + 1885 5361 added too many carries on to the 100s column
	1c	471.3 + 526.4 997.7 has forgotten to add the carried over 100
	1d	732 – 329 403 has forgotten that you will have exchanged one 10 into ten 1s to make it 12 – 9 = 3 and leave 2 in the 10s column.
	1e	89.52 – 16.68 72.84 due to exchanging, you should do 8 – 6 in the units/ones column = 2 and 80 – 10 = 70 not 60
	1f	£50.00 – £29.99 £20.01 they have forgotten that they would have to exchange 1 tenth to 10 hundredths in order to subtract 9 from it, meaning that the tenths column is 9 – 9 = 0
57	1a	8
	1b	5
	1c	7
	1d	6
	1e	2
	1f	5
58	1	5% of £13 = £0.65 each
	2	£52.00 – 35.10 = £16.90
	3a	£10.50
	3b	£22.85
59	1	£280
	2	£168
	3	£160
	4	£190

Page number	Question number	Answers
60–61	1a	1, 2
	1b	1, 2, 4
	1c	1, 2,
	1d	1, 2, 3, 4, 6, 12
	1e	1, 2, 4
	1f	1, 3, 5, 15
	1g	1, 2
	1h	1, 2, 5, 10
	2a	3
	2b	10
	2c	5
	2d	14
	2e	4
	2f	16
	2g	6
	2h	20
	3a	$\frac{3}{4}$
	3b	$\frac{1}{2}$
	3c	$\frac{1}{3}$
	3d	$\frac{3}{5}$
	3e	$\frac{2}{3}$
	3f	$\frac{3}{5}$
	3g	$\frac{1}{3}$
	3h	$\frac{5}{6}$
	3i	$\frac{1}{3}$
	3j	$\frac{9}{10}$
	3k	$\frac{4}{9}$
	3l	$\frac{19}{20}$
	4a	6
	4b	$1\frac{1}{9}$
	4c	$1\frac{1}{5}$ or $\frac{6}{5}$
	4d	$4\frac{1}{5}$
	4e	$9\frac{1}{2}$ or $\frac{19}{2}$
	4f	$2\frac{3}{5}$ or $\frac{13}{5}$
	4g	$4\frac{1}{3}$ or $\frac{13}{3}$
	4h	$4\frac{1}{4}$ or $\frac{17}{4}$

Page number	Question number	Answers
62	1a	$\frac{1}{2} < \frac{5}{8}$
	1b	$\frac{3}{5} < \frac{2}{3}$
	1c	$\frac{2}{3} < \frac{3}{4}$
	1d	$\frac{4}{5} > \frac{3}{4}$
	1e	$\frac{5}{6} > \frac{7}{9}$
	1f	$\frac{4}{5} > \frac{9}{20}$
	1g	$\frac{7}{10} > \frac{9}{20}$
	1h	$\frac{7}{8} < \frac{11}{12}$
	2a	$\frac{1}{6}, \frac{2}{3}, \frac{3}{4}$
	2b	$\frac{5}{9}, \frac{11}{18}, \frac{2}{3}$
	2c	$\frac{1}{2}, \frac{7}{12}, \frac{5}{6}$
	2d	$\frac{1}{4}, \frac{5}{12}, \frac{2}{3}$
63		$\frac{3}{6} = \frac{5}{10}$ $\quad \frac{8}{8} = \frac{10}{10}$ $\frac{1}{4} = \frac{4}{16}$ $\quad \frac{7}{8} = \frac{35}{40}$ $\frac{3}{4} = \frac{6}{8}$ $\quad \frac{6}{16} = \frac{12}{32}$ $\frac{2}{5} = \frac{10}{25}$ $\quad \frac{3}{5} = \frac{9}{15}$
64	1a	$\frac{8}{10} + \frac{7}{10} = \frac{15}{10} = \frac{3}{2}$
	1b	$\frac{4}{8} - \frac{3}{8} = = \frac{1}{8}$
	1c	$\frac{5}{10} - \frac{3}{10} = \frac{2}{10} = \frac{1}{5}$
	1d	$\frac{8}{10} + \frac{5}{10} = \frac{13}{10}$
	1e	$\frac{7}{12} + \frac{9}{12} = \frac{16}{12}$ or $\frac{4}{3}$
	1f	$\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$
	1g	$\frac{7}{10} - \frac{6}{10} = \frac{1}{10}$
	1h	$\frac{8}{12} + \frac{9}{12} = \frac{17}{12}$
	1i	$\frac{5}{10} + \frac{6}{10} = \frac{11}{10}$
	1j	$\frac{15}{24} + \frac{14}{24} = \frac{29}{24}$
	1k	$\frac{3}{6} - \frac{2}{6} = \frac{1}{6}$
	1l	$\frac{7}{8} - \frac{6}{8} = \frac{1}{8}$
	1m	$\frac{11}{12} - \frac{3}{12} = \frac{8}{12}$ or $\frac{2}{3}$

Page number	Question number	Answers
65	1a	$5\frac{3}{8}$ or $\frac{43}{8}$
	1b	5
	1c	$5\frac{7}{8}$ or $\frac{39}{8}$
	1d	$2\frac{1}{4}$
	1e	$4\frac{1}{20}$ or $\frac{81}{20}$
	1f	$1\frac{3}{8}$ or $\frac{11}{8}$
	1g	$8\frac{13}{24}$ or $\frac{205}{24}$
	1h	$2\frac{1}{8}$ or $\frac{17}{8}$
	1i	$4\frac{13}{20}$ or $\frac{93}{20}$
	1j	$2\frac{9}{20}$ or $\frac{49}{20}$
	1k	$8\frac{11}{18}$ or $\frac{115}{18}$
	1l	$2\frac{2}{15}$ or $\frac{32}{15}$
66–67	1a	$\frac{2}{10} = \frac{1}{5}$
	1b	$\frac{3}{48} = \frac{1}{16}$
	1c	$\frac{6}{36} = \frac{1}{6}$
	1d	$\frac{20}{80} = \frac{1}{4}$
	1e	$\frac{12}{72} = \frac{1}{6}$
	1f	$\frac{20}{60} = \frac{1}{3}$
	1g	$\frac{9}{30} = \frac{3}{10}$
	1h	$\frac{6}{20} = \frac{3}{10}$
	1i	$\frac{10}{20} = \frac{1}{2}$
	1j	$\frac{15}{10} = \frac{3}{2}$ or $1\frac{1}{2}$
	1k	$\frac{28}{28} = 1$
	1l	$\frac{77}{44} = \frac{7}{4}$ or $1\frac{3}{4}$
	1m	3
	1n	$\frac{24}{6} = 4$
	1o	$\frac{9}{2}$ or $4\frac{1}{2}$
	1p	$\frac{72}{12} = 6$
	1q	$\frac{79}{28} = 2\frac{1}{2}$
	1r	$\frac{63}{24} = 2\frac{5}{8}$
	1s	$\frac{45}{20}$ or $\frac{9}{4}$ or $2\frac{1}{4}$
	1t	$\frac{42}{10}$ or $4\frac{2}{10}$ or $4\frac{1}{5}$

Page number	Question number	Answers
68	1a	$\frac{1}{6}$
	1b	$\frac{1}{7}$
	1c	$\frac{1}{12}$
	1d	$\frac{1}{10}$
	1e	$\frac{1}{28}$
	1f	$\frac{1}{16}$
	1g	$\frac{5}{81}$
	1h	$\frac{1}{8}$
	1i	$\frac{1}{16}$
	1j	$\frac{1}{18}$
	1k	$\frac{1}{14}$
	1l	$\frac{11}{48}$
69		Check the matches that children have drawn.
	1	It should be $2\frac{4}{16}$ not $3\frac{4}{16}$ as $3\frac{4}{16}$ is equivalent to $\frac{52}{16}$ not $\frac{36}{16}$
	2	$1\frac{3}{7}$ & $\frac{10}{7}$, $2\frac{1}{7}$ & $\frac{15}{7}$, $\frac{36}{16}$, $2\frac{6}{16}$ & $\frac{38}{16}$, $3\frac{4}{10}$, $3\frac{5}{9}$ & $\frac{32}{9}$, $4\frac{1}{12}$ & $\frac{49}{12}$, $5\frac{2}{9}$ & $\frac{47}{9}$, $5\frac{3}{12}$ & $\frac{63}{12}$, $5\frac{4}{5}$ & $\frac{29}{5}$, $7\frac{2}{5}$ & $\frac{37}{5}$
70	1	$\frac{5}{6}$ of: 240m = 200m 15kg = 12.5kg £63 = £52.50 $\frac{2}{3}$ of: 1m 23cm = 82cm £156 = £104 174kg = 116kg
	2a	£50
	2b	75cm
	2c	2.5kg
	3a	£36.50
	3b	35cm
	3c	650g or 0.65kg
71	1a	$3\frac{3}{7}$m
	1b	3.43m (to 2 dp)
	2a	$8\frac{2}{7}$, 8.3
	2b	$17\frac{3}{4}$, 17.8
	2c	$5\frac{3}{8}$, 5.4
72		Mrs Bonus

Page number	Question number	Answers
73		A = 7 (195cm) B = 4 (196cm) C = 9 (£10) D = 6 (£10.20) E = 3 (£9.90) F = 10 (187.5cm) G = 8 (£10.30) H = 2 (191.25cm) I = 5 (£9.60) J = 1 (192.5cm)
74	1	
	2	
	3	
	4	
75	1	£345
	2	£343.75, Superstore
	3	It doesn't matter – it's the same price in both.

Page number	Question number	Answers
76	1a	5 ones or 5
	1b	3 tenths or 0.3
	1c	5 hundredths or 0.05
	1d	3 hundredths or 0.03
	1e	9 thousandths or 0.009
	1f	3 tens or 30
	1g	7 ones or 7
	1h	7 tenths or 0.7
	2	X = 4.2 Y = 4.7 Z = 4.9
	3 a–d	Check children's answers.
	4 a–e	Check children's answers.
77	1a	2.225, 2.553, 5.225, 5.552
	1b	0.202, 1.002, 1.221, 2.101
	1c	4.504, 4.554, 5.445, 5.545
	1d	13.367, 13.673, 13.763, 31.352
	1e	23.223, 23.322, 32.332, 33.323
78	1a	3 eggs 180g of butter 330g of flour 180g of currants 90g of sugar 90ml of milk
	1b	5 eggs 300g of butter 550g of flour 300g of currants 150g of sugar 150ml of milk
	2a	2
	2b	25g
	2c	250g
	2d	120g
	2e	100ml
79	1	40%
	2	35%
	3	25%
	4	140
80		Answers will vary.

Page number	Question number	Answers
81	1a	11km
	1b	1.8cm
	1c	Check children's drawing
	2a	10m × 12 m
	2b	16:1
82	1	Answers will vary.
	2	Answers will vary.
83	1	60%
	2	18/25
	3	40%
	4	$\frac{3}{15}$ or $\frac{1}{5}$
84		7c + 3b = 49 + 9 = 58 (ba)² = 12 × 12 = 144 2d × 6 = 10 × 6 = 60 4e ÷ 2b = 36 ÷ 6 = 6 2d + 6b = 10 + 18 = 28 a² = 4 × 4 = 16 2b = 2 × 3 = 6 eb = 9 × 3 = 27 bc = 3 × 7 = 21 e ÷ b =9 ÷ 3 = 3 ed = 9 × 5 = 45
85	1a	9n
	1b	12y
	1c	lw = a or l × w = a
	1d	6n
	1e	n ÷ 7
	2a	30
	2b	16
	2c	50
	2d	20
	2e	80
	2f	300
	2g	2
86	1	13
	2a	17
	2b	51
	3a	46
	3b	108

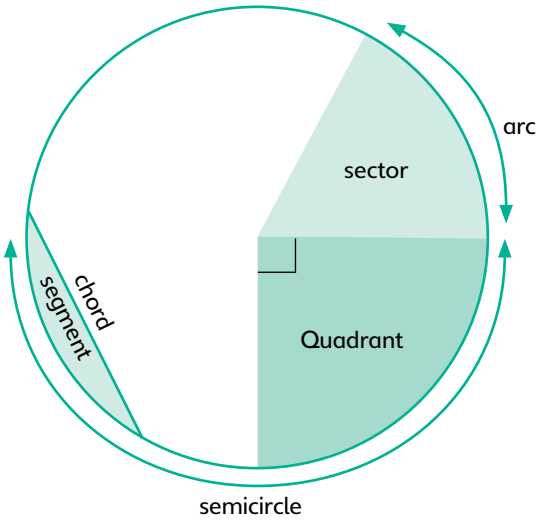
Page number	Question number	Answers
87	1a	19
	1b	40
	1c	48
	1d	2
	1e	35
	1f	3
	1g	12
	1h	10
	1i	21
	1j	26
	2a	3, 7, 11, 5, 9
	2b	2, 4, 6, 3, 5
	2c	2, 8, 14, 5, 11
88	1a	Answers will vary. For example, 7 + 8 = 15
	1b	Answers will vary. For example, 20 – 8 = 12
	1c	Answers will vary. For example, 20 = 2 × 10
	1d	Answers will vary. For example, 12 ÷ 4 = 3
	1e	Answers will vary. For example, 15 = 3 + (2 × 6)
	1f	Answers will vary. For example, (2 × 10) + 5 = 25
	1g	Answers will vary. For example, (2 × 7) – 13 = 1
	1h	Answers will vary. For example, (4 × 2) + (2 × 6) = 20
	1i	Answers will vary. For example, 43 – (4 × 9) = 7
	1j	Answers will vary. For example, (8 × 8) – (2 × 15) = 34
	1k	Answers will vary. For example, 48 = (4 × 3) × (2 × 2)
	1l	Answers will vary. For example, (6 × –2) + 11 = –1
89	1a	85°
	1b	43°
	1c	120°
	1d	100°
	2	a = (–3, 2) b = (–5, –3) c = (3, 3) d = (2, 0)
	3	w = 12cm² y = 8cm

Page number	Question number	Answers
90	1a	43, 52, 62 The amount you add increases by 1 each time, for example: +5, +6, +7
	1b	14, 8, 5 The amount you subtract is halved each time.
	1c	64, 81, 100 The amount you add increases by 2 each time, for example, +11, +13, +15
	1d	8/32, 16/64, 32/128 The numerator and the denominator doubles each time.
	1e	M, S, Z You add 1 more to the number you count on by to get the letter for example, +3 = D, +4 + H, +5 = M
	1f	202, 607, 1822 You × the previous term by 3 and then add 1 to get the next number in the sequence.
	2a	Answers will vary.
	2b	Answers will vary.
	2c	Answers will vary.
91	1	The number increases by +2, +3 repeatedly; 15, 17, 20, 22
	2a	The number increases by +4, +3 each time; 18, 21, 25, 28
	2b	The number increases by +6, +3 each time; 24, 27, 33, 36
	2c	The number increases by +7, +5 each time; 31, 36, 43, 48
	3	The numbers decrease by -3, -2 each time; 38, 36, 33, 31
92	1a	25, 27, 35, 36; Rule: Amount added to every even nth term increases by 1, amount added to every odd nth term decreases by 1
	1b	18, 24, 26, 32; Rule: +2, +6
	1c	15.5, 18, 20.5, 23; Rule: +2.5
	2a	25/8, 30/8, 37/8, 46/8; Rule: Amount added to the numerator increases by 1 each time for example +2, +3, +4
	2b	0.15, 0.8, 1.45, 2.1, 2.75, 3.4, 4.05, 4.7; Rule: +0.65 each time
	3a	Rectangle
	3b	8
	3c	I thought of each set of shapes as a set of 5 and used this to help work out the answers for example, for 3b 40 ÷ 5 = 8

Page number	Question number	Answers
93	1a	4f
	1b	15 + n
	1c	2g – 2
	1d	5h
	1e	3g + 3h
	1f	5x + y
	2	The mystery number multiplied by six and added to two = 6x + 2 Two divided by the mystery number = 2 ÷ x Three more than the mystery number = x + 3 The mystery number added to two then multiplied by six = 6(x+2) The mystery number divided by two = x ÷ 2 The mystery number divided by fifty = x ÷ 50 Fifty divided by the mystery number = 50 ÷ x The mystery number multiplied by itself = x^2
94		Answers will vary; check children's measurements.
95	1	4cm 3mm, 48mm, 6.5cm, 7cm 8mm, 90mm, 9.8cm
	2	106cm, 1.09m, 1m32cm, 141cm, 1m 58cm, 1.75m
	3	3900m, 4km 86m, 4.75km, 5.002km, 6km 200m, 8003m
96		Answers will vary, check children's measurements.
97	1	A: 250ml; B: 720ml
	2a	X
	2b	10ml
98	1a	1150
	1b	1275
	1c	1850
	1d	2250
	2a	1.75
	2b	2.15
	2c	8.7
	2d	14.6
	3a	1.275
	3b	3.47
	3c	5.5
	3d	12.578
	4a	4,500
	4b	5,900
	4c	12,350
	4d	10,430

Page number	Question number	Answers
99	1a	47g, 426g, 0.47kg, 4kg 250g, 0.046 tonne
	1b	550g, 1.54kg, 0.005 tonne, 5005g, 5kg 50g
	1c	650g, 0.75kg, 1.35kg, 3kg 450g, 0.06 tonne
	2a	3l 570ml, 1.7l, 35cl, 304ml, 0.04l
	2b	3.2l, 315cl, 2l 310ml, 2131ml, 1.23l
	2c	6l 400ml, 4.6l, 4060ml, 65cl, 640ml
100		Answers will vary.
101	1	25 mins 3:40pm 3:55pm 6:05pm
	2	Day 1 – 4 hours 50 minutes or 290 minutes Day 2 – 4 hours 50 minutes or 290 minutes Day 3 – 6 hours 35 minutes or 395 minutes Day 4 – 5 hours 40 minutes or 340 minutes
	3	11:35am, 5:50pm, 6 hours 15 minutes or 375 minutes
102	1	240,000m
	2	Answers will vary, check children's measurements.
103	1	Check children's drawings.
	2a	32
	2b	48
	2c	80
	2d	24
	2e	40
	2f	72
	3a	25
	3b	37 ½
	3c	12 ½
	3d	9 ½
	3e	34 ½
	3f	47
104	1	Check children's chart, for example, 30 × 2 = 64m, 20 × 3 = 46m Biggest perimeter = 60 × 1 = 122m
	2	124m

Page number	Question number	Answers	
105	1	1 = 1	7 = 49
		2 = 4	8 = 64
		3 = 9	9 = 81
		4 = 16	10 = 100
		5 = 25	11 = 121
		6 = 36	12 = 144
	2a	3200cm²	
	2b	770,000cm² or 7700m²	
	2c	£847	
	2d	1440 minutes	
106	1	Room 1 = 36m²	Room 4 = 52m²
		Room 2 = 42m²	Room 5 = 39m²
		Room 3 = 52m²	Room 6 = 57m²
107	1	27cm²	
		24cm²	
		27.5cm²	
		36cm²	
	2	98cm²	
		78cm²	
		88cm²	
108–109	1a	64cm³	
	1b	343cm³	
	1c	216cm³	
	1d	160cm³	
	1e	8750mm³	
	1f	15m³	
	2	120cm³	
		2cm	
		2cm	
		13cm	
	3	a and b have the same volume = 360cm³	
		c = 320cm³	
		d = 280cm³	
	4	All have the same volume.	

Page number	Question number	Answers
110-111	1a	circumference
	1b	diameter
	1c	radius
	2a	Check children's drawings.
	2b	Check children's drawings.
	2c	Check children's drawings.
	3	The radius is half the diameter.
	4a	Check children's drawings.
	4b	Check children's drawings.
	4c	Check children's drawings.
	5	The circumference is roughly 3× the diameter.
	6	
112	1a	30°
	1b	72°
	1c	94°
	1d	22°
	1e	109°
	1f	127°
	2a–c	Check children's measurements – allow 2° margin of error.
113	1a	Right angle
	1b	Acute angle
	1c	Obtuse angle
	1d	Reflex angle
	2a	40°
	2b	128°
	2c	95°
	2d	322°
	2e	60°
	2f	52°

Page number	Question number	Answers
114	1a	Check children's drawings.
	1b	Check children's drawings.
	1c	Check children's drawings.
	1d	Check children's drawings.
	1e	Check children's drawings.
	1f	A - Parallelogram B – Irregular pentagon
115	1	Check children's drawings.
	2	Check children's drawings.
	3	The longest side is always opposite the largest angle.
	4	They always add up to 180°.
116	1	Check children's drawings.
	2	Check children's drawings.
	3	Check children's drawings.
117	1	4
	2	2
	3	Tetrahedron, Sphere, Square-based pyramid, Cone, Triangular and hexagonal prism
	4	Cylinder
	5	Triangular prism
	6	Answers will vary.
118		Check children's drawings.
119	1	Answers will vary.
	2	Answers will vary.
	3	Answers will vary.
120	1	Southwick: Won – 10, Drew – 6, Lost – 4 Northport: Won – 14, Drew – 4, Lost - 10
	2	No because Northport played more games so half of their pie chart is worth 14 matches. This means they won more than Southwick whose half is only representing 10 matches.
121	1–3	Answers will vary.
122	1	Red – Highest : 8000, Lowest: 1500 Blue – Highest: 5000, Lowest: 1500
	2	9000
	3	5000
	4	2004, 2008
	5	1992, 2000
	6	Red party
	7	It has increased year on year.
123	1	Check children's drawings.
	2	Answers will vary.

Page number	Question number	Answers
124	1	It cannot be the mean because it is lower than every bar on the chart. The mean is adding up all the totals and dividing by the number of items, so it should be above some of the bars.
	2	13
	3	Answers will vary.
	4	6
	5	Answers will vary. For example, 4, 7, 11, 11, 15
125	1	Week 1: 26, 26 Week 2: 28, 30 Week 3: 21, 21 Week 4: 25, 25