

Key Stage 2

Mathematics

Answer Booklet:

Paper 1 Arithmetic

Paper 2 Reasoning

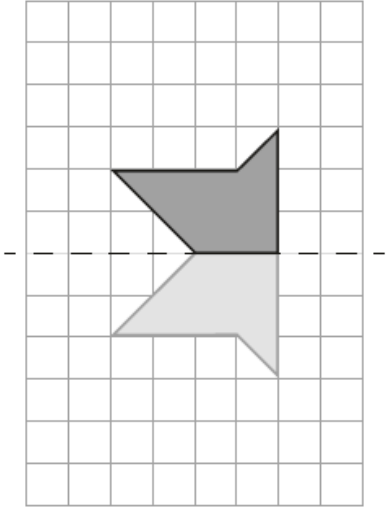
Paper 3 Reasoning

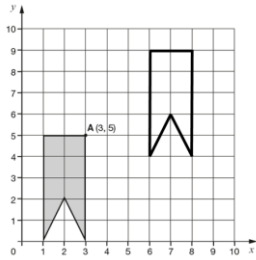
Published October 2018


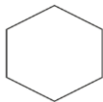
Paper 1: Arithmetic

Question Number	Content Domain	Answer	Marks & Notes
1	Y3	922	1 mark
2	Y3	$\frac{2}{11}$	1 mark
3	Y3	70	1 mark
4	Y4	979	1 mark
5	Y4	11	1 mark
6	Y4	240	1 mark
7	Y4	7,332	1 mark
8	Y5	76	1 mark
9	Y4	101.09	1 mark
10	Y3	406	1 mark
11	Y4	60	1 mark
12	Y4	700	1 mark
13	Y5	6	1 mark
14	Y4	5912	1 mark
15	Y6	60,000	1 mark
16	Y4	3.7	1 mark
17	Y5	$\frac{15}{18}$ OR $\frac{5}{6}$	1 mark
18	Y6	0.004	1 mark
19	Y5	400	1 mark
20	Y6	320	1 mark
21	Y6	18	1 mark
22	Y6	$\frac{9}{14}$	1 mark
23	Y6	21,240	2 marks for the correct answer. 1 mark for an incorrect answer but use of a vertical column method with no more than 1 arithmetic error.
24	Y6	$2\frac{3}{5}$	1 mark
25	Y6	15	2 marks for the correct answer. 1 mark for an incorrect answer but use of a vertical column method with no more than 1 arithmetic error.
26	Y5	0.171	1 mark
27	Y6	188	1 mark
28	Y6	$\frac{4}{12}$ OR $\frac{1}{3}$	1 mark
29	Y6	198,186	2 marks for the correct answer. 1 mark for an incorrect answer but use of a vertical column method with no more than 1 arithmetic error.
30	Y6	693	1 mark
31	Y6	$\frac{1}{6}$	1 mark
32	Y5& Y6	57	1 mark
33	Y5	90	1 mark
34	Y6	93	2 marks for the correct answer. 1 mark for an incorrect answer but use of a vertical column method with no more than 1 arithmetic error.
35	Y6	238	1 mark
36	Y6	$1\frac{29}{35}$	1 mark

Paper 2: Reasoning

Question Number	Content Domain	Answer	Marks & Notes
1	Y4		<p>1 mark</p> <p>Shape need not be shaded and accept slight inaccuracies in drawing.</p>
2	Y3	<p>Correct addition calculations of: $37 + 48 = 85$ OR $48 + 37 = 85$</p>	<p>1 mark</p> <p>All 6 digits must be correctly placed in the column addition.</p>
3	Y3	<p>A point on the line in the range 4.6cm to 4.8cm inclusive.</p>	<p>1 mark</p>
4	Y4	<p>Both values correct showing: $\frac{6}{9}$ and $\frac{10}{15}$</p>	<p>1 mark</p> <p>Both values must be correct for the award of 1 mark.</p>
5a	Y6 / Y4	9	<p>1 mark</p> <p>Do not accept -9 or 9-</p>
5b	Y6 / Y4	Warsaw	<p>1 mark</p>
6	Y5	683,608	<p>1 mark</p>
7	Y4	<p>Both numbers are identified:</p> <p>$\frac{75}{100}$ & 0.75</p>	<p>1 mark</p> <p>Both numbers must be identified for the award of one mark. No additional numbers must be identified.</p>
8	Y3	<p>352</p> <p>If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g.</p> <p>$64 \times 4 = 256$ $32 \times 3 = 96$ $256 + 96 =$</p>	<p>2 marks</p> <p>1 mark</p>
9	Y6	<p>Explanation that recognises that the year 2000 does not fit into the sequence of the games being held every four years e.g 1990, 1994, 1998, 2002.</p>	<p>1 mark</p>

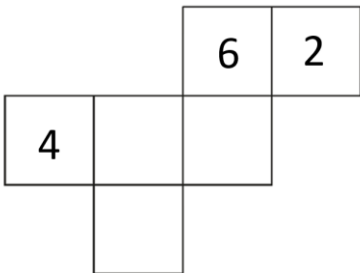
10	Y6	$12 \times 12 \text{ } \textbf{>} \text{ } 13 \times 10$ $180 \div 9 \text{ } \textbf{<} \text{ } 160 \div 4$ $30 \times 7 \text{ } \textbf{>} \text{ } 8 \times 20$ $560 \div 7 \text{ } \textbf{= } 640 \div 8$	2 marks for all symbols correct 1 mark for any three symbols correct						
11	Y6	<table border="1"><thead><tr><th>Number of edges</th><th>Number of faces</th><th>Number of vertices</th></tr></thead><tbody><tr><td>12</td><td>7</td><td>7</td></tr></tbody></table>	Number of edges	Number of faces	Number of vertices	12	7	7	2 marks for the table completed as shown. 1 mark for two correct numbers correctly placed.
Number of edges	Number of faces	Number of vertices							
12	7	7							
12	Y6 / Y4		1 mark Shape need not be shaded and accept slight inaccuracies in drawing.						
13	Y5	Correct fraction circled $\textcircled{69/7}$	1 mark Accept alternative unambiguous indications of the correct answer, e.g. fraction ticked.						
14	Y6	All three fractions written in the correct order, as shown $\frac{6}{8}$ $\frac{5}{6}$ $\frac{7}{6}$	1 mark						
15	Y5	2,880 If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g. $24 \times 3 = 72$ $72 \times 40 =$	2 marks 1 mark						
16	Y5	Boxes ticked as follows:- Subtract 100 and then subtract 2 <input type="checkbox"/> Subtract 7, subtract 90 and then subtract 1 <input checked="" type="checkbox"/> Add on 2 and then subtract 100 <input checked="" type="checkbox"/> Subtract 7 from 8, then subtract 90 from 230 and add the two answers <input type="checkbox"/>	2 marks Award 1 mark for: 1 box ticked correctly and no incorrect boxes ticked Or 2 boxes ticked correctly and one incorrect box ticked.						
17	Y5	1.64l or 1640 ml $32 \times 230 = 7360$ 9 litres = 9000ml $9000 - 7360 = 1740$ (error) $9000 - 32 \times 230$	3 marks If the answer is incorrect award 2 marks for evidence of an appropriate method with no more than 1 error, e.g. 1 mark for evidence of appropriate method						

18	Y6	£12.60 Sight of £63 ÷ 5 Or – evidence of an appropriate method 4 tickets cost 4 x £12 = £48 £48 + 15 = £63 £63 ÷ 5 =	2 marks 1 mark
19	Y6	6 – 3 + 3	1 mark
20	Y6	22.5cm If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g. 19 x 7.5 = 142.5cm 22 x 7.5 = 165cm 165 – 142.5 =	2 marks 1 mark
21a	Y6	 = 23	1 mark
21b	Y6	 = 49	1 mark
22	Y6	216cm ³	1 mark
23	Y5	105,192 hours If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g. 365 ¼ x 12 = answer Answer x 24 = answer	2 marks 1 mark

Paper 3: Reasoning

Question Number	Content Domain	Answer	Marks & Notes
1	Y4 / Y6	__36__ 45 __54__ 63 72 __81__	2 marks Award 1 mark for two numbers correctly placed
2	Y6	Green & black or Black & green Blue & black or Black & blue	1 mark
3	Y5	3724	1 mark

4	Y5	$ \begin{array}{r} 7 \quad 6 \quad 3 \quad 3 \quad \boxed{7} \\ + \quad \quad 4 \quad 5 \quad \boxed{4} \quad 8 \\ \hline \boxed{8} \quad 0 \quad 8 \quad 8 \quad 5 \end{array} $	<p>2 marks for the numbers completed as shown.</p> <p>1 mark for any two numbers completed correctly.</p>
5	Y5	<p>2 4 8</p> <p>1 mark for two numbers correctly circled and no incorrect numbers circled or</p> <p>Three numbers correctly circled and one incorrect number circled</p>	<p>2 marks for the three numbers circled correctly</p> <p>1 mark</p>
6	Y6	<p>There are fewer jaguars than cheetahs. <input checked="" type="checkbox"/></p> <p>The total number of lions and tigers is 30. <input type="checkbox"/></p> <p>There are 15 cheetahs. <input checked="" type="checkbox"/></p> <p>There are 20 lions. <input type="checkbox"/></p>	<p>2 marks for only two correct boxes ticked.</p> <p>1 mark for one correct box ticked and no incorrect boxes OR</p> <p>1 mark for two correct boxes ticked and one incorrect box ticked.</p>
7a	Y5	148	1 mark
7b	Y5	2	1 mark
8	Y6	£390	1 mark
9	Y6	45cm	1 mark
10	Y6 / Y5	(-3, 4)	1 mark
11	Y3 / Y4	<p>475ml</p> <p>OR and answer in the range of 470ml and 480ml</p> <p>If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g.</p> <p>150 + 175 = 325</p> <p>800 – 325 =</p>	<p>2 marks</p> <p>1 mark</p>
12	Y5 / Y6	31	1 mark
13	Y5	<p>40</p> <p>If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g.</p> <p>2.2 x 1000 = 2200</p> <p>2200 ÷ 55 = answer</p>	<p>2 marks</p> <p>1 mark</p>
14	Y6 / Y4	An explanation showing an understanding that the other angle has to be 60° because it is an equilateral triangle or stating that scalene triangles have different sized angles. Do not accept answers that state the triangle could be isosceles.	1 mark
15a	Y6	£4.25	1 mark

15b	Y6	<p>7 colours</p> <p>If the answer is incorrect award 1 mark for evidence of an appropriate method, e.g.</p> <p>$£7 - £1.45 = £5.55$ $£5.55 \div 7$</p>	<p>2 marks</p> <p>1 mark</p>
16	Y4	<p>166 pages</p> <p>If the answer is incorrect award 1 mark for sight of 83</p> <p>OR evidence of an appropriate method, e.g.</p> <p>$249 \div 3 = 83$ $249 - 83 =$</p>	<p>2 marks</p> <p>1 mark</p>
17	Y5 / Y6		<p>1 mark for all numbers placed in the correct squares. Accept unusual orientations of the numbers.</p>
18	Y6	<p>$\frac{2}{15}$ or an equivalent fraction.</p> <p>If the answer is incorrect, award one mark for sight of $\frac{13}{15}$</p> <p>OR evidence of an appropriate method, e.g.</p> <p>$\frac{2}{3} + \frac{1}{5}$ $\frac{10}{15} + \frac{3}{15} = \frac{12}{15}$ (error) $1 - \frac{12}{15} =$</p>	<p>2 marks</p> <p>1 mark</p>
19	Y6 / Y5	<p>All 3 numbers completed correctly</p> <p>$72.3 \times 56 =$ 4048.8</p> <p>$7230 \times 5.6 =$ 40,488</p> <p>$4048.8 \div 723 =$ 5.6</p> <p>Award one mark for any two numbers completed correctly.</p>	<p>2 marks</p> <p>1 mark</p>
20	Y4 / Y3	<p>122 eggs</p> <p>If the answer is incorrect, award one mark for sight of 55.</p>	<p>2 marks</p> <p>1 mark</p>

		OR Evidence of an appropriate method, e.g. $30 - 19 = 11$ $11 \times 5 = 55$ $55 + 67$	
21a	Y5	60 min 15 sec	1 mark
21b	Y5	46 min 54 sec	1 mark