

# Finding Missing Numbers - Answers

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Key Stage 2: 2003 Paper A

1.

<b>1a</b>	65	<b>1m</b>	
<b>1b</b>	2400	<b>1m</b>	

Key Stage 2: 2003 Paper A

2.

<b>16</b>	Award <b>TWO</b> marks for all three numbers correct as shown:  a multiple of 9 <table><tr><td>2</td><td>7</td></tr></table> OR <table><tr><td>7</td><td>2</td></tr></table>  a square number <table><tr><td>2</td><td>5</td></tr></table>  a factor of 96 <table><tr><td>1</td><td>2</td></tr></table>  If the answer is incorrect, award <b>ONE</b> mark for two numbers correct.	2	7	7	2	2	5	1	2	<b>Up to 2m</b>	
2	7										
7	2										
2	5										
1	2										

Key Stage 2: 2003 Paper A

3.

<b>25</b>	<table><tr><td>2</td><td>5</td><td>10</td><td>20</td></tr></table> OR <table><tr><td>4</td><td>5</td><td>10</td><td>20</td></tr></table>	2	5	10	20	4	5	10	20	<b>1m</b> U1	Accept the four numbers listed in any order.
2	5	10	20								
4	5	10	20								

Key Stage 2: 2003 Paper A

4.

<p><b>26</b></p>	<p>Award <b>TWO</b> marks for the correct answer of 20</p> <p>If the answer is incorrect, award <b>ONE</b> mark for evidence of appropriate method, eg</p> <ul style="list-style-type: none"> <li>■ <math>30 \times \pounds 5 = \pounds 150</math>  <math>\pounds 150 - \pounds 110 = \pounds 40</math>  <math>\pounds 40 \div \pounds 2 = 20</math></li> <li>■ <math>\pounds 110 \div 30 = \pounds 3</math> each, with <math>\pounds 20</math> left over  <math>\pounds 20 \div \pounds 2 = 10</math>  <math>30 - 10 = 20</math></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>■ a trial and improvement method, eg  <math>30 \times \pounds 3 = \pounds 90</math>  <math>10 \times \pounds 3 + 20 \times \pounds 5 = \pounds 130</math>  <math>15 \times \pounds 3 + 15 \times \pounds 5 = \pounds 120</math></li> </ul>	<p><b>Up to 2m</b></p> <p>U2</p>	<p><i>Calculation must be performed for the award of <b>ONE</b> mark.</i></p> <p><i>A 'trial and improvement' method must show evidence of improvement, but a final answer need not be reached for the award of <b>ONE</b> mark.</i></p>
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Key Stage 2: 2003 Paper B

1.

<p><b>1a</b></p> <p><b>1b</b></p> <p><b>1c</b></p>	<p>3</p> <p>75</p> <p>84</p>	<p><b>1m</b></p> <p><b>1m</b></p> <p><b>1m</b></p>	
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Key Stage 2: 2003 Paper B

2.

<p><b>4a</b></p> <p><b>4b</b></p>	<p>90</p> <p>13</p>	<p><b>1m</b></p> <p><b>1m</b></p>	
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Key Stage 2: 2003 Paper B

3.

<b>13</b>	Calculation completed correctly as shown: $\boxed{6} \boxed{3} \times \boxed{6} = \boxed{3} \boxed{7} \boxed{8}$ <b>OR</b> $\boxed{5} \boxed{4} \times \boxed{7} = \boxed{3} \boxed{7} \boxed{8}$ <b>OR</b> $\boxed{4} \boxed{2} \times \boxed{9} = \boxed{3} \boxed{7} \boxed{8}$	<b>1m</b>	
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Key Stage 2: 2003 Paper B

4.

<b>14</b>	Award <b>TWO</b> marks for one correct number written in each white section of the table, eg <table border="1" style="margin: 10px auto;"><tr><td></td><td style="background-color: #d9e1f2;">less than 1000</td><td style="background-color: #d9e1f2;">1000 or more</td></tr><tr><td style="background-color: #d9e1f2;">multiples of 20</td><td style="background-color: #fff;">100</td><td style="background-color: #fff;">2000</td></tr><tr><td style="background-color: #d9e1f2;">not multiples of 20</td><td style="background-color: #fff;">19</td><td style="background-color: #fff;">1001</td></tr></table> If the answer is incorrect, award <b>ONE</b> mark for three sections completed correctly.		less than 1000	1000 or more	multiples of 20	100	2000	not multiples of 20	19	1001	<b>Up to 2m</b>	<i>Accept more than one number in each section as long as <b>all</b> are correct.</i>
	less than 1000	1000 or more										
multiples of 20	100	2000										
not multiples of 20	19	1001										

Key Stage 2: 2003 Paper B

5.

<p><b>20</b></p>	<p>Award <b>TWO</b> marks for all three answers correct, as shown:</p> <p>k = <input type="text" value="500"/>   m = <input type="text" value="750"/>   n = <input type="text" value="250"/></p> <p>If the answer is incorrect, award <b>ONE</b> mark for evidence of appropriate method, eg</p> <ul style="list-style-type: none"><li>■ <math>2n + 3n + n = 1500</math> <math>1500 \div 6</math></li></ul> <p><b>OR</b></p> <ul style="list-style-type: none"><li>■ a trial and improvement method, eg</li></ul> <p><math>1000 + 1500 + 500 = 3000</math> <math>200 + 300 + 100 = 600</math> <math>400 + 600 + 200 = 1200</math></p>	<p><b>Up to 2m</b></p> <p>U1</p>	<p>Accept for <b>ONE</b> mark any permutation of the correct answers, eg</p> <p><math>k = 750, m = 250, n = 500</math></p> <p>Answer need not be obtained for the award of <b>ONE</b> mark.</p> <p>A 'trial and improvement' method must show evidence of improvement.</p>
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Key Stage 2: 2003 Paper B

6.

<p><b>21a</b></p> <p><b>21b</b></p>	<p>£1.50</p> <p>Award <b>TWO</b> marks for the correct answer of 250</p> <p>If the answer is incorrect, award <b>ONE</b> mark for evidence of appropriate method, eg</p> <p><math>360 \div 90 = 4</math></p> <p><math>1000 \div 4</math></p>	<p><b>1m</b></p> <p><b>Up to 2m</b></p>	<p>Answer need not be obtained for the award of <b>ONE</b> mark.</p>
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Key Stage 2: 2004 Paper A

1.

<b>1a</b>	115	<b>1m</b>	
<b>1b</b>	30	<b>1m</b>	
<b>1c</b>	69	<b>1m</b>	

Key Stage 2: 2004 Paper A

2.

<b>6a</b>	15	<b>1m</b>	
<b>6b</b>	25	<b>1m</b>	

Key Stage 2: 2004 Paper A

3.

<b>14</b>	<p>Award <b>TWO</b> marks for all four boxes completed correctly as shown:</p> <table border="1"><tr><td>×</td><td>5</td><td><input type="text" value="9"/></td><td><input type="text" value="8"/></td></tr><tr><td>4</td><td>20</td><td>36</td><td>32</td></tr><tr><td><input type="text" value="7"/></td><td>35</td><td>63</td><td>56</td></tr><tr><td><input type="text" value="6"/></td><td>30</td><td>54</td><td>48</td></tr></table> <p>If the answer is incorrect, award <b>ONE</b> mark for three boxes completed correctly.</p>	×	5	<input type="text" value="9"/>	<input type="text" value="8"/>	4	20	36	32	<input type="text" value="7"/>	35	63	56	<input type="text" value="6"/>	30	54	48	<p><b>Up to 2m</b></p> <p><input type="text" value="U1"/></p>	
×	5	<input type="text" value="9"/>	<input type="text" value="8"/>																
4	20	36	32																
<input type="text" value="7"/>	35	63	56																
<input type="text" value="6"/>	30	54	48																

Key Stage 2: 2004 Paper B

1.

<b>5a</b>	8	<b>1m</b>	
<b>5b</b>	80	<b>1m</b>	

Key Stage 2: 2004 Paper B

2.

<b>7</b>	<p>Calculation completed correctly as shown:</p> $\boxed{5} \boxed{4} \times 2 = \boxed{1} \boxed{0} \boxed{8}$	<b>1m</b>	
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Key Stage 2: 2004 Paper B

3.

<b>19a</b>	813.75	<b>1m</b>	
<b>19b</b>	58.17	<b>1m</b>	<b>Do not</b> accept -58.17

Key Stage 2: 2004 Paper B

4.

<b>21</b>	22	<b>1m</b>	
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Key Stage 2: 2005 Paper A

1.

<b>23</b>	<p>Award <b>TWO</b> marks for the correct answer as shown:</p> <p><b>A</b> = <math>\boxed{-80}</math>    <b>B</b> = <math>\boxed{60}</math></p> <p>If the answer is incorrect, award <b>ONE</b> mark for evidence of appropriate working, eg</p> $140 \div 7 = 20$	<b>Up to 2m</b>	<p>Accept 'minus 80'</p> <p><b>Do not</b> accept '80-'</p> <p>Answer need not be obtained for the award of <b>ONE</b> mark.</p> <p>Accept for <b>ONE</b> mark:</p> <p><b>A = -80 AND B = wrong answer OR</b></p> <p><b>A = -80 AND B = blank OR</b></p> <p><b>A = 80 AND B = 60 OR</b></p> <p><b>A = 80 AND B = -60 OR</b></p> <p><b>A = 60 AND B = -80</b></p>
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Key Stage 2: 2005 Paper B

1.

<b>6a</b>	$\boxed{7} + \boxed{18} = \boxed{25}$	<b>1m</b>	
<b>6b</b>	$\boxed{25} \times \boxed{3} = \boxed{75}$	<b>1m</b>	
		U1	

Key Stage 2: 2005 Paper B

2.

<b>8a</b>	Answer in the range 340 to 360 inclusive.	<b>1m</b>	
<b>8b</b>	Answer in the range 240 to 260 inclusive.	<b>1m</b>	

Key Stage 2: 2005 Paper B

3.

<b>9a</b>	955 in first box.	<b>1m</b>	
<b>9b</b>	1010 in second box.	<b>1m</b>	

Key Stage 2: 2005 Paper B

4.

<b>17</b>	$\boxed{32} \times \boxed{32} = \boxed{1024}$	<b>1m</b>	Accept 32
		U1	

Key Stage 2: 2006 Paper B

1.

<b>1a</b>	4	<b>1m</b>	
<b>1b</b>	599	<b>1m</b>	

Key Stage 2: 2006 Paper B

2.

<b>4</b>	$\boxed{9} \boxed{1} + \boxed{9} \boxed{1} + \boxed{1} \boxed{9} = 201$ OR $\boxed{9} \boxed{9} + \boxed{9} \boxed{1} + \boxed{1} \boxed{1} = 201$	<b>1m</b> U1	Accept the three two-digit numbers written in any order.
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Key Stage 2: 2007 Paper A

1.

<b>1a</b>	15	<b>1m</b>	
<b>1b</b>	50	<b>1m</b>	

Key Stage 2: 2007 Paper B

1.

<b>3</b>	$\boxed{3} \boxed{7} + \boxed{6} \boxed{3}$	<b>1m</b>	
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Key Stage 2: 2007 Paper B

2.

<b>24</b>	$\boxed{63}$ AND $\boxed{65}$	<b>1m</b> U1	Answers may be given in either order.
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Key Stage 2: 2009 Paper B

1.

<b>12a</b>	-10	<b>1m</b>	Do not accept 10-
<b>12b</b>	45	<b>1m</b>	

Key Stage 2: 2010 Paper A

1.

<b>23</b>	101	<b>1m</b>	
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Key Stage 2: 2010 Paper B

1.

3	115 OR 151 OR 511 OR 133 OR 313 OR 331	1m	<b>U1</b>
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Key Stage 2: 2011 Paper A L6

1.

11	1m	16	
	1m	800	

Key Stage 2: 2011 Paper B L6

1.

8	1m	The first <input type="text" value="3"/> multiples of <input type="text" value="10"/> add to 60	
	1m	The first <input type="text" value="4"/> multiples of <input type="text" value="6"/> add to 60 or The first <input type="text" value="2"/> multiples of <input type="text" value="20"/> add to 60	
		The first <input type="text" value="1"/> multiples of <input type="text" value="60"/> add to 60	
	<b>U1</b>		

Key Stage 2: 2011 Paper B

1.

17	<input type="text" value="1"/> <input type="text" value="1"/> × <input type="text" value="1"/> <input type="text" value="6"/>	1m	Numbers may be given in either order.
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Key Stage 2: 2012 Paper A L6

1.

<b>9a</b>	Gives a value for $y$ such that $10y + 2$ is a prime number, eg: <ul style="list-style-type: none"><li>• 0</li><li>• <math>\frac{1}{2}</math></li><li>• 1.7</li></ul>	<b>1m</b>	
<b>9b</b>	Gives a value for $y$ such that $10y + 2$ is a square number, eg: <ul style="list-style-type: none"><li>• -0.1</li><li>• 0.2</li><li>• 0.7</li><li>• 1.4</li></ul>	<b>1m</b>	

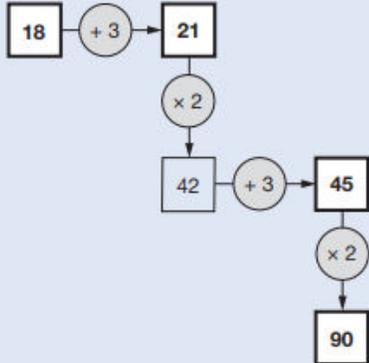
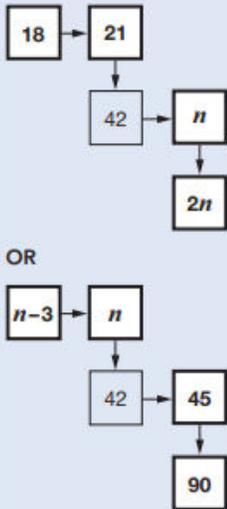
Key Stage 2: 2012 Paper B L6

1.

<b>2</b>	2.089 in first box	<b>1m</b>	✓ <i>Equivalent fractions</i>
	2.095 in second box	<b>1m</b>	

Key Stage 2: 2012 Paper A

1.

<p><b>5</b></p>	<p>Award <b>TWO</b> marks for all four numbers correct as shown:</p>  <p>If the answer is incorrect, award <b>ONE</b> mark for three numbers correct.</p>	<p><b>Up to 2m</b></p>	<p>If the answer is incorrect, award <b>ONE</b> mark for two numbers correct <b>AND</b> two numbers appropriately linked, ie</p>  <p>OR</p> <p>where <math>n</math> is any number.</p>
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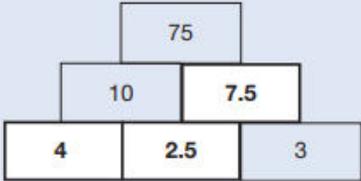
Key Stage 2: 2012 Paper B

1.

<b>1a</b>	68	<b>1m</b>	
<b>1b</b>	35	<b>1m</b>	

Key Stage 2: 2013 Paper A L6

1.

<p>2</p>	<p>Gives the three correct numbers in their correct positions, ie:</p> <ul style="list-style-type: none"> <li>  </li> </ul> <p>Gives two correct numbers in their correct positions</p>	<p>2m</p> <p>✓ <b>Unambiguous indication</b></p> <p>✓ <b>Equivalent fractions</b>, eg:</p> <ul style="list-style-type: none"> <li><math>7\frac{5}{10}</math> for 7.5</li> </ul> <p>or</p> <p>1m</p>	
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Key Stage 2: 2013 Paper B L6

1.

<p>9</p>	<p>2.2</p> <p>10.648 or 10.65 or 10.6 seen <i>(the answer to <math>2.2 \times 2.2 \times 2.2</math>)</i></p> <p><b>OR</b></p> <p>2.15(...) seen</p> <p><b>OR</b></p> <p>Shows a correct method using trial and improvement, eg:</p> <ul style="list-style-type: none"> <li><math>2 \times 2 \times 2 = 8</math></li> <li><math>2.5 \times 2.5 \times 2.5 = 15.625</math></li> <li><math>2.1 \times 2.1 \times 2.1 = 9.261</math></li> <li>2.4 because it's bigger than 2.1 which was too small, but smaller than 2.5 which was too big</li> </ul>	<p>2m</p> <p>!</p> <p>or</p> <p>1m</p>	<p><b>For 1m, accept 2.1</b> (correct value but not correctly rounded)</p> <p><b>Trial and improvement methods</b></p> <p>There must be at least three trials. At least three of these trials must reduce the interval in which the solution is known to lie</p> <p><b>and</b></p> <p>at least two trials must use values to 1 decimal place</p> <p><b>Numbers not evaluated within trial and improvement methods</b></p> <p>Condone methods that do not show evidence of evaluating the final number, eg:</p> <ul style="list-style-type: none"> <li>2.3 because I know it's between 2 and 2.5</li> </ul>
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Key Stage 2: 2013 Paper A

1.

<b>1a</b>		<b>1m</b>	
<b>1b</b>		<b>1m</b>	

Key Stage 2: 2013 Paper B

1.

<b>8</b>	$\boxed{187} \div 11 = 17$	<b>1m</b>	
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Key Stage 2: 2014 Paper A L6

1.

<b>10</b>	2.5	<b>1m</b>	✓ <i>Equivalent fractions or decimals</i>
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Key Stage 2: 2014 Paper A

1.

<b>5</b>	<p>Award <b>TWO</b> marks for all three numbers correct as shown:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">×</td> <td style="text-align: center;">8</td> <td style="text-align: center;">5</td> <td style="text-align: center;"><b>7</b></td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;"><b>32</b></td> <td style="text-align: center;">20</td> <td style="text-align: center;">28</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">40</td> <td style="text-align: center;"><b>25</b></td> <td style="text-align: center;">35</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">24</td> <td style="text-align: center;">15</td> <td style="text-align: center;">21</td> </tr> </table> <p>If the answer is incorrect, award <b>ONE</b> mark for two numbers correct.</p>	×	8	5	<b>7</b>	4	<b>32</b>	20	28	5	40	<b>25</b>	35	3	24	15	21	<b>Up to 2m</b>	
×	8	5	<b>7</b>																
4	<b>32</b>	20	28																
5	40	<b>25</b>	35																
3	24	15	21																

Key Stage 2: 2014 Paper B

1.

<b>23</b>	<b>3 AND 5 AND 7</b>	<b>1m</b>	Numbers may be given in any order.
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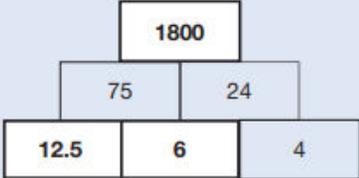
Key Stage 2: 2015 Paper A L6

1.

<b>1a</b>	4.9	<b>1m</b>	✓ <i>Accept equivalent fractions and decimals</i>
<b>1b</b>	-0.5	<b>1m</b>	✓ $-\frac{1}{2}$

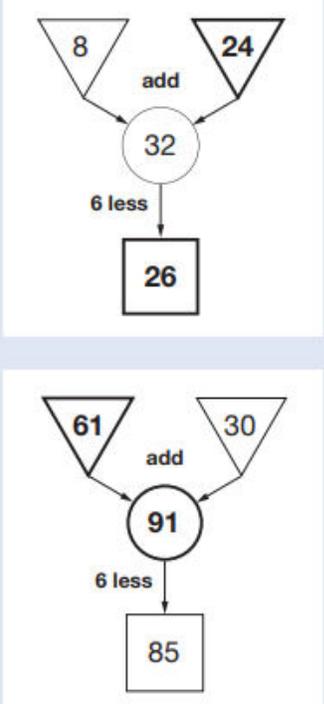
Key Stage 2: 2015 Paper A L6

2.

<b>3</b>	<p>Gives the three correct numbers in their correct positions, ie:</p>  <p>Gives two correct numbers in their correct positions</p>	<b>2m</b>	✓ <i>Unambiguous indication</i> ✓ <i>Equivalent fractions and decimals, eg:</i> <ul style="list-style-type: none"><li>• accept <math>12\frac{3}{6}</math> for 12.5</li></ul>
		<b>or</b>	
		<b>1m</b>	

Key Stage 2: 2015 Paper A

1.

6a	Diagrams completed correctly as shown:	1m	
6b		1m	

Key Stage 2: 2015 Paper A

2.

8a	63	1m	
8b	5	1m	

Key Stage 2: 2015 Paper A

3.

15	$\begin{array}{ c c } \hline 6 & 1 \\ \hline \end{array} - \begin{array}{ c c } \hline 2 & 7 \\ \hline \end{array} = 34$	1m	
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Key Stage 2: 2015 Paper A

4.

<b>21</b>	Two numbers with a difference of 2, in the range 48 <b>inclusive</b> to 52 <b>exclusive</b> eg: ■ 48 <b>AND</b> 50 <b>OR</b> ■ 51.9 <b>AND</b> 49.9 <b>OR</b> any pair of numbers that differ from those above by a multiple of 100 and have a difference of 2, eg: ■ 149 <b>AND</b> 151 <b>OR</b> ■ 648 <b>AND</b> 650	<b>1m</b> <b>U1</b>	Numbers can be given in either order.
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Key Stage 2: 2015 Paper B

1.

<b>1</b>	89	<b>1m</b>	
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Key Stage 2: 2015 Paper B

2.

<b>14</b>	13	<b>1m</b>	
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Key Stage 2: 2015 Paper B

3.

<b>16a</b>	7	<b>1m</b>	
<b>16b</b>	8	<b>1m</b>	

Key Stage 2: Paper 2 and 3 Reasoning - Sample

1.

Qu	Requirement	Mark	Additional guidance
6	$  \begin{array}{r}  \boxed{1} \boxed{8} \boxed{1} \\  + \boxed{7} \boxed{1} \boxed{9} \\  \hline  \boxed{9} \boxed{0} \boxed{0}  \end{array}  $	1 mark	

Key Stage 2: 2016 Paper 2 Reasoning - Sample

1.

1	257	1m	
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Key Stage 2: 2016 Paper 3 Reasoning - Sample

1.

12	0.993	1m	
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Key Stage 2: 2016 Paper 3 Reasoning - Sample

2.

14	<p>Award <b>TWO</b> marks for three numbers correctly placed.</p> $  \begin{array}{c}  \boxed{22.5} \\  \boxed{4.5} \quad \boxed{5} \\  \boxed{2.25} \quad \boxed{2} \quad \boxed{2.5}  \end{array}  $ <p>If the answer is incorrect award <b>ONE</b> mark for two numbers correctly placed.</p>	Up to 2m	
<p><b>Question 14 commentary:</b> This question involves multiplying and dividing decimals where the answer has up to two decimal places (6F9).</p>			

Key Stage 2: 2016 Paper 2 Reasoning

1.

<b>3</b>	Award <b>TWO</b> marks for: $\begin{array}{r} 15\boxed{1} \\ + 4\boxed{6}4 \\ \hline \boxed{6}15 \end{array}$ If the answer is incorrect, award <b>ONE</b> mark for two digits correct.	<b>Up to 2m</b>	
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Key Stage 2: 2016 Paper 2 Reasoning

2.

<b>18</b>	20	<b>1m</b>	
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Key Stage 2: 2018 Paper 3 Reasoning

1.

<b>3</b>	Digits in correct order, as shown: $\boxed{2}\boxed{7}\boxed{4}\boxed{3}$	<b>1m</b>	All digits must be in the correct order for the award of <b>ONE</b> mark.
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Key Stage 2: 2019 Paper 2 Reasoning

1.

<b>16</b>	4	<b>1m</b>	
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