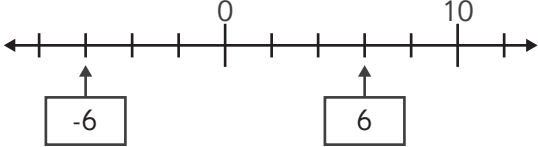
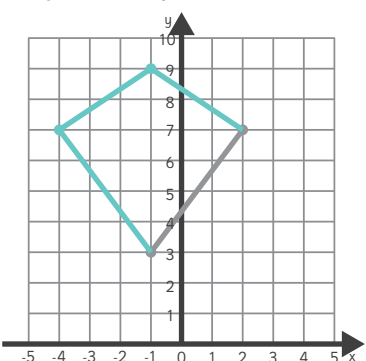







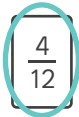

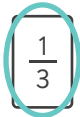



# Pack B - Paper 2: Reasoning Mark Scheme

Qu	Requirement	Mark	Additional guidance
1	<p>Award <b>ONE</b> mark for the correct numbers placed on the number line, as shown:</p> 	1m	Do not accept one correct answer, where the other answer is incorrect
2a	4	1m	<b>Do not</b> accept 3 remainder 6
2b	6	1m	<b>Do not</b> accept 36
3	<p>Award <b>ONE</b> mark for the correct response of £2.35</p>	1m	Accept for <b>ONE</b> mark, 235p for final answer in the working and the answer box blank OR 235p in the answer box where the £ has been replaced with p.
4	<p>Award <b>TWO</b> marks for the correct answer of 7 (hours) and 5 (minutes)</p> <p>If the answer is incorrect, award <b>ONE</b> mark for the evidence of an appropriate method, e.g.</p> <p>7:30 to 8:00 = 30 minutes  3:50 to 4:45 = 55 minutes  30 + 55 = 85 minutes  85 x 5 = 420 minutes (error)  420 ÷ 60 = 7</p> <p>OR</p> <p>7:30 to 8:00 = 30 minutes  3:50 to 4:45 = 55 minutes  30 + 55 = 85 minutes  85 x 5 = 425 minutes  425 ÷ 60 = 6 hours 25 minutes (error)</p> <p>Award <b>ONE</b> mark for sight of:  150 <b>AND</b> 275  OR  425 (minutes)</p>	Up to 2m	<p>Answer need not be obtained for the award of <b>ONE</b> mark.</p> <p>Accept for <b>ONE</b> mark a correct answer given in hours OR minutes only, written either as a mixed number fraction or an exact decimal equivalent, e.g.</p> <p>7 5/60 (hours) blank (minutes)  OR  7.08<math>\dot{3}</math> (hours) blank (minutes)  OR  blank (hours) 425 (minutes)</p>
5	<p>Diagram completed, as shown.</p> 	1m	<p>Ignore any attempt to label the shape.</p> <p>Accept slight inaccuracies in drawing, provided the intention is clear.</p>

Qu	Requirement	Mark	Additional guidance
6	6	1m	
7	<p>Award <b>ONE</b> mark for both symbols written correctly, as shown:</p> <p><math>4 \times 8</math>  <math>35 - 5</math></p> <p><math>48 \div 8</math>  <math>3 + 3</math></p>	1m	Accept alternative unambiguous positive indication of the correct answer.
8	<p>Award <b>ONE</b> mark for all three answers circled correctly, as shown:</p> <p>  10  95</p>	1m	Accept alternative unambiguous positive indication of the correct answer.
9	<p>Award <b>ONE</b> mark for all three responses ticked correctly, as shown:</p> <p>3,104,251 <input checked="" type="checkbox"/></p> <p>2,711,150 <input checked="" type="checkbox"/></p> <p>2,116,000 <input type="checkbox"/></p> <p>3,365,210 <input checked="" type="checkbox"/></p> <p>3,901,000 <input type="checkbox"/></p>	1m	Accept alternative unambiguous positive indication of the correct answer.
10a	500,321	1m	
10b	489,321	1m	
11	Award <b>ONE</b> mark for both correct letters, <b>A</b> and <b>D</b>	1m	
12	<p>Award <b>ONE</b> mark for correct responses circled, as shown:</p> <p>     </p>	1m	Accept alternative unambiguous positive indication of the correct answer.
13	28 cm	1m	
14	£176	1m	
15a	84	1m	
15b	220	1m	
16	£8.00	1m	Accept <b>£8</b>
17	12	1m	

Qu	Requirement	Mark	Additional guidance
18	Award <b>ONE</b> mark for an answer in the range of 113 to 117 inclusive.	1m	Accept a 2mm tolerance either side (6.2 cm to 6.6 cm)
19	All three fractions correctly placed in the statement, as shown: $\boxed{\frac{3}{4}} > \boxed{\frac{2}{3}} > \boxed{\frac{1}{2}}$	1m	Accept equivalent fractions, placed in the correct order e.g. $\boxed{\frac{9}{12}} > \boxed{\frac{8}{12}} > \boxed{\frac{6}{12}}$
20	$\frac{24}{5}$ $\frac{6}{5}$ $\boxed{\frac{14}{5}}$ $\frac{26}{5}$ $\frac{12}{5}$ $\frac{28}{5}$	1m	Accept alternative unambiguous positive indication of the correct answer.
21a	$\frac{3}{8}$	1m	Do not accept any equivalent fractions. The fraction must be in its simplest form
21b	$\frac{2}{5}$	1m	Do not accept any equivalent fractions. The fraction must be in its simplest form
22	1,200	1m	<b>Do not</b> accept 1,200%
23	Award <b>TWO</b> marks for the correct answer of 85 g  If the answer is incorrect, award <b>ONE</b> mark for evidence of an appropriate method, e.g. $1,270 - 250 = 1,020$ $1,020 \div 12 = 84 \text{ (error)}$ <p style="text-align: center;"><b>OR</b></p> $1,270 - 250 = 1,010 \text{ (error)}$ $1,010 \div 12 = 84\text{r}2$	Up to 2m	Accept for <b>TWO</b> marks, 0.085 kg for final answer in the working and the answer box blank OR 0.085 kg in the answer box where the g has been replaced with kg.  Accept for <b>ONE</b> mark 0.085 g in the answer box OR as the final answer in the working and answer box blank.  Answer need not be obtained for the award of <b>ONE</b> mark.  Any conversion of units must be correct.  <b>Do not</b> award the mark for a method that contains an incorrect conversion
24	Award <b>TWO</b> marks for the correct answer of 4 cm  If the answer is incorrect, award <b>ONE</b> mark for evidence of an appropriate method, e.g. $2 \text{ inches} = 5 \text{ cm}$ $5 \times 5 = 20 \text{ (error)}$ $3.5 \times 6 = 21$ $21 - 20 = 1$ <p style="text-align: center;"><b>OR</b></p> $2 \text{ inches} = 5\text{cm}$ $5 \times 5 = 25$ $3.5 \times 6 = 21$ $25 - 21 = 4 \text{ (error)}$	Up to 2m	Accept for <b>TWO</b> marks, the correct answer in the working and the answer box blank  Answer need not be obtained for the award of <b>ONE</b> mark.



Qu	Requirement	Mark	Additional guidance												
25	<p>Award <b>TWO</b> marks for the correct answer of 48 cm<sup>2</sup></p> <p>If the answer is incorrect, award <b>ONE</b> mark for evidence of an appropriate method, e.g.</p> <p style="text-align: center;"><math>8 \times 8 = 64</math> <math>8 \div 2 = 4</math> <math>4 \times 8 = 32</math> <math>32 \div 2 = 16</math> <math>64 - 16 = 42</math> (error)</p> <p style="text-align: center;"><b>OR</b></p> <p style="text-align: center;"><math>8 \times 8 = 64</math> <math>8 \div 2 = 4</math> <math>4 \times 8 = 32</math> <math>32 \div 2 = 17</math> (error) <math>64 - 17 = 47</math></p>	Up to 2m	<p>Accept for <b>TWO</b> marks, the correct answer in the working and the answer box blank</p> <p>Answer need not be obtained for the award of <b>ONE</b> mark</p>												
26a	<p>Values filled in correctly in table, as shown:</p> <table><tr><td></td><td>Number of flowers</td><td>Size of angle on pie chart</td></tr><tr><td>Goldfinch</td><td>10</td><td><b>120°</b></td></tr><tr><td>Robin</td><td>11</td><td><b>132°</b></td></tr><tr><td>Sparrows</td><td>9</td><td><b>108°</b></td></tr></table>		Number of flowers	Size of angle on pie chart	Goldfinch	10	<b>120°</b>	Robin	11	<b>132°</b>	Sparrows	9	<b>108°</b>	1m	
	Number of flowers	Size of angle on pie chart													
Goldfinch	10	<b>120°</b>													
Robin	11	<b>132°</b>													
Sparrows	9	<b>108°</b>													
26b	150°	1m													