

# Mark Scheme (Results)

Summer 2010

GCSE

GCSE Mathematics (Modular) - 2381

Paper: 5381H/6A

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5381H/6A

Question	Working	Answer	Mark	Notes								
1 (a)		<table border="1" data-bbox="922 344 1173 491"> <tr><td>1</td><td>1 3 8 9</td></tr> <tr><td>2</td><td>2 3 5 6 8</td></tr> <tr><td>3</td><td>1 6 6 6</td></tr> <tr><td>4</td><td>0 1</td></tr> </table> <p data-bbox="981 545 1146 593">Key: 1   2 = 12</p>	1	1 3 8 9	2	2 3 5 6 8	3	1 6 6 6	4	0 1	3	<p data-bbox="1370 344 1886 376">B3 for fully correct diagram with key</p> <p data-bbox="1370 418 1998 488">(B2 for ordered leaves, with at most two errors or omissions <b>and</b> a valid stem and key</p> <p data-bbox="1370 494 1908 526">OR correct unordered leaves <b>and</b> a key</p> <p data-bbox="1370 533 1966 564">OR correct ordered leaves and a valid stem)</p> <p data-bbox="1370 606 2033 676">(B1 for unordered or ordered leaves, with one or two errors or omissions</p> <p data-bbox="1370 683 1518 715">OR key)</p>
1	1 3 8 9											
2	2 3 5 6 8											
3	1 6 6 6											
4	0 1											
(b)		36	1	B1 cao								
2	$(8 \times 1 + 11 \times 2 + 9 \times 3 + 7 \times 4 + 5 \times 5) \div 40$ $= 8 + 22 + 27 + 28 + 25$ $= 110 \div 40$	2.75	3	<p data-bbox="1370 903 1953 1008">M1 for <math>8 \times 1</math> or <math>11 \times 2</math> or <math>9 \times 3</math> or <math>7 \times 4</math> or <math>5 \times 5</math> oe or 22, 27, 28, 25 seen or 110 seen</p> <p data-bbox="1370 1050 2033 1082">M1 dep for <math>(8 \times 1 + 11 \times 2 + 9 \times 3 + 7 \times 4 + 5 \times 5) \div 40</math></p> <p data-bbox="1370 1168 1653 1200">A1 for 2.75 or <math>2\frac{3}{4}</math></p>								

5381H/6A																												
Question	Working	Answer	Mark	Notes																								
3	<table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>Lowest</td> <td>3</td> <td>3</td> </tr> <tr> <td>LQ</td> <td>5</td> <td>8</td> </tr> <tr> <td>Median</td> <td>6.5</td> <td>11</td> </tr> <tr> <td>UQ</td> <td>11</td> <td>14</td> </tr> <tr> <td>Highest</td> <td>16</td> <td>19.5</td> </tr> <tr> <td>Range</td> <td>13</td> <td>16.5</td> </tr> <tr> <td>IQR</td> <td>6</td> <td>6</td> </tr> </tbody> </table>		A	B	Lowest	3	3	LQ	5	8	Median	6.5	11	UQ	11	14	Highest	16	19.5	Range	13	16.5	IQR	6	6	two comparisons	2	<p>B1 for comparison of spread e.g. range of depths in region B greater than range of depths in region A e.g. interquartile ranges are equal</p> <p>B1 for comparison of a specific value or a different comparison of spread e.g. deepest crater in region B is deeper than the deepest crater in region A e.g. median B greater than median A</p>
	A	B																										
Lowest	3	3																										
LQ	5	8																										
Median	6.5	11																										
UQ	11	14																										
Highest	16	19.5																										
Range	13	16.5																										
IQR	6	6																										
4	$(35 + 41 + 53) \div 3 = 129 \div 3$  $(41 + 53 + 29) \div 3 = 123 \div 3$	43, 41	2	<p>M1 for <math>(35 + 41 + 53) \div 3</math> or <math>(41 + 53 + 29) \div 3</math> oe (may be implied by one correct answer) A1 for both 43 and 41</p> <p><b>S.C.</b> Award B1 for 41, 43</p>																								
5 (a)		20, 35	1	B1 for both 20 and 35																								
(b)		complete histogram	1	B1 for a bar of correct width with height 5cm and a bar of correct width with height 3.5cm (tolerance $\pm 1$ sq)																								

5381H/6A				
Question	Working	Answer	Mark	Notes
6	$\frac{56}{290} \times 50$	10	2	M1 for $\frac{56}{290} \times 50$ oe or 9.6 ... or 9.7 seen A1 for 9 or 10



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