

Stem and Leaf Past Paper Questions (MS)



Q1.

PAPER: 5MB1F_01				
Question	Working	Answer	Mark	Notes
		12 3 5 9	3	B2 for a fully correct ordered diagram (B1 for correct unordered diagram or ordered with at most two errors) B1 for correct key eg 12 3 means 123 (cm)
		13 0 3 3 5 7 8		
		14 7 7 8 9		
		15 0 1		

Q2.

Question	Working	Answer	Mark	Notes
(a)		Jake with reason	C1	Explanation referring to spread eg range or Jakes figures are closer together or highest and lowest values for both.
(b)		Reason	C1	Reason eg stem not used or it should be 26

Q3.

PAPER: 5MB1F_01				
Question	Working	Answer	Mark	Notes
		4 7 8 8 5 0 0 1 3 5 7 8 6 1 2 4 6 6 9 7 3 5 8 4 7 represents 47 grams	3	B2 for fully correct ordered diagram (B1 for correct unordered diagram or ordered with at most 2 errors) B1 for correct key, eg 4 7 represents 47 (grams)

Q4.

Question	Working	Answer	Mark	Notes																				
		18 9 9 19 0 3 5 8 20 0 5 6 7 7 21 1 2 8 22 3 Key	3	B2 for a correct ordered diagram (B1 for an unordered diagram with at most 1 error or omission OR for an ordered diagram with 1 or 2 errors or omissions Note: 1 error can look like 2 in the diagram when 1 value is misplaced B1 (indep) for a correct key eg Key: 18 7 represents 187 (g) NB for an ordered diagram of the form <table style="margin-left: 20px;"> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">1</td> <td style="padding-right: 10px;">89</td> <td style="padding-right: 10px;">89</td> <td style="padding-right: 10px;">90</td> <td style="padding-right: 10px;">93</td> <td style="padding-right: 10px;">95</td> <td style="padding-right: 10px;">98</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">2</td> <td style="padding-right: 10px;">00</td> <td style="padding-right: 10px;">05</td> <td style="padding-right: 10px;">06</td> <td style="padding-right: 10px;">07</td> <td style="padding-right: 10px;">07</td> <td style="padding-right: 10px;">11</td> <td style="padding-right: 10px;">12</td> <td style="padding-right: 10px;">18</td> <td style="padding-right: 10px;">23</td> </tr> </table> award a maximum of B1 for an ordered diagram with 1 or 2 errors or omissions The B1 for a key can still be earned.	1	89	89	90	93	95	98				2	00	05	06	07	07	11	12	18	23
1	89	89	90	93	95	98																		
2	00	05	06	07	07	11	12	18	23															



Q5.

Question	Working	Answer	Mark	Notes								
(a)		<table style="border-collapse: collapse; margin-left: 20px;"> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">7</td><td style="padding: 2px 5px;">1 3 8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">8</td><td style="padding: 2px 5px;">1 4 4 7 8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">9</td><td style="padding: 2px 5px;">1 2 3 5 6 6 6 8</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">10</td><td style="padding: 2px 5px;">0 1 3 4</td></tr> </table> <p style="margin-left: 20px;">Key: 7 1 means 71cm</p>	7	1 3 8	8	1 4 4 7 8	9	1 2 3 5 6 6 6 8	10	0 1 3 4	3	B2 for fully correct diagram Accept a stem of 70, 80, 90, 100 (The order of the numbers in the stem may be reversed) (B1 for ordered leaves or unordered leaves (with one error or omission))
7	1 3 8											
8	1 4 4 7 8											
9	1 2 3 5 6 6 6 8											
10	0 1 3 4											
(b)		33	1	B1 for a correct key (units may be omitted)								
(c)	104 - 71	92.5	1	B1 for 33 or ft from diagram B1 for 92.5 or ft from diagram if ordered.								

Q6.

Question	Answer	Mark	Mark scheme	Additional guidance								
(a)	<table style="border-collapse: collapse; margin-left: 20px;"> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">6</td><td style="padding: 2px 5px;">4799</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">7</td><td style="padding: 2px 5px;">0015667</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">8</td><td style="padding: 2px 5px;">0011247</td></tr> <tr><td style="border-right: 1px solid black; padding: 2px 5px;">9</td><td style="padding: 2px 5px;">14</td></tr> </table>	6	4799	7	0015667	8	0011247	9	14	B2 (B1) B1	for correct ordered stem and leaf for fully correct unordered or ordered with one error or omission) (indep) for key (units not required but must be correct if stated) eg 6 4 = 64 (marks)	
6	4799											
7	0015667											
8	0011247											
9	14											
(b)	Explanation	C1 C1	for identifying "6" students failed (ft their diagram) OR for $20 \div 4 (= 5)$ for comparing $\frac{1}{4}$ with $\frac{6}{20}$ or $\frac{3}{10}$ (ft their diagram) OR for comparing "6" with 5	Explanation does not need to state that Omar is wrong, but just needs to provide two comparable values (that are not the same) unless ft values show that Omar is not wrong in which case a statement is needed.								

Q7.

Question	Working	Answer	Mark	Notes
(a)		21	1	B1 cao
(b)		17	1	B1 cao
(c)	55 - 15	40	2	M1 for 55 - 15 (accept 15 - 55 or 15 to 55 or 55 to 15 or 15, 55 but not 15 + 55) A1 cao



Q8.

	Working	Answer	Mark	Notes
(a)		68	1	B1 cao
(b)		37	1	B1 cao
(c)		41	2	M1 for an attempt to find the middle number or circling the 1 in the diagram or writing 1 or 4 1 A1 cao

Q9.

Question	Answer	Mark	Mark scheme	Additional guidance																																		
(a)	Diagram	B2	for a fully correct ordered diagram	<table border="1" style="margin-left: 20px;"> <tr><td>7</td><td> </td><td>1</td><td>1</td><td>4</td><td>5</td><td>7</td></tr> <tr><td>8</td><td> </td><td>2</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>9</td><td> </td><td>1</td><td>4</td><td>7</td><td>8</td><td></td><td></td><td></td></tr> <tr><td>10</td><td> </td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> <p>Accept stem of 70, 80, 90, 100 Can be in reverse vertical order (with matching leaves) eg 10, 9, 8, 7 Errors can be omissions; one number in the wrong position is one error.</p>	7		1	1	4	5	7	8		2	4	5	6	7	8	9	9		1	4	7	8				10		3						
		7			1	1	4	5	7																													
8		2	4	5	6	7	8	9																														
9		1	4	7	8																																	
10		3																																				
(B1)	for a complete unordered diagram or for an ordered diagram with at most one error or omission)																																					
		B1	for correct key eg 7 1 or 70 1 represents 71 Key must be consistent with the stem																																			
(b)	86	M1	for identifying the median, eg "6" circled or an answer of 6 or ft their list or diagram for selection of middle value (allow up to two errors or omission in listing)																																			
		A1	for 86 or ft their list or diagram for selection of middle value (allow up to two errors or omission in listing)																																			

Q10.

Question	Working	Answer	Mark	Notes
(a)		27	1	B1 cao
(b)	$(27 + 1)/2 = 14$ so 14th is median value	23	1	B1 cao
(c)	$53 - 8$	45	2	M1 for 53-8 A1 cao [SC: B1 for 8 to 53 or 8 - 53 oe or 8 and 53 identified if M0 A0 awarded]