Paper 1MA1: 1F

Question	Working	Answer	Mark	Notes
12 (a) **Q1** (b)	**12** 7 19 18 **8** 26 **30** 15 **45**	Correct table $\frac{8}{45}$	B3 (B2 (B1 B1	Fully correct table for 5, 6, 7 or 8 figures correct) for given values entered correctly in the table **or** for a correct row **or** column) for $\frac{8}{45}$ **or** ft from values in table eg $\frac{"8"}{"45"}$

Paper: 1MA1/2F

Question	Working	Answer	Mark	Notes
12 (a) **Q2** (b)		23, 177 10, 13, 85, 92 $\frac{13}{23}$	C3 (C2 (C1 M1 A1	Completes all information correctly. 3 or 4 correct frequencies or all correct probabilities) 2 correct frequencies) ft oe for $\frac{a}{23}$, $a < 23$ or $\frac{13}{b}$, $b > 13$ ft oe from (a)

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Question	Answer	Mark	Mark scheme	Additional guidance
17 (a) **Q3**	32, 48, 24, 8, 37, 11	C1	starts to interpret information, eg 48 or 8 in correct place	
		C1	for 80 – 48 (= 32) and "32" – 8 (= 24)	
		C1	completes frequency tree correctly SC: award C2 if all correct frequencies are shown as fractions of 80.	
(b)	$\dfrac{37}{61}$	M1	ft for $\dfrac{a}{"61"}$ with $a <$ "61" or $\dfrac{"37"}{b}$ with $b >$ "37"	Incorrect notation with "37" and "61"can earn the method mark but not the accuracy mark.
		A1	ft from diagram in (a)	Accept any equivalent fraction, decimal form 0.60(65...) or 0.61 or percentage form 60(.65...)% or 60% or 61%

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Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
14 **Q4**	4 22 45 **18** 7 **23** 16	C1 C1 C1	for correctly placing at least one piece of data (22 or 16) **OR** for finding at least one unknown piece of data (4, 18, 7 or 23) for correctly placing at least one piece of data (22 or 16) **and** for finding at least one unknown piece of data (4, 18, 7 or 23) for a complete correct tree. **SC C2** if all 6 figures are shown as the numerator of fractions in the correct places	Unknown figures may be seen in working and need not be on the diagram Award of this mark implies the first C1

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Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
15 (a) **Q5** (b)	16 45 29 75 14 61 $\dfrac{29}{120}$	C1 C1 C1 B1	starts to interpret information eg 75 or 29 in the correct place for 120 – 75 (= 45) and "45" – 29 (= 16) Complete and correct frequency tree for $\dfrac{29}{120}$ or ft "29" from part (a)	May be seen as numerators of fractions for the first 2 marks. Could be seen in working or on the diagram Accept any equivalent fraction, decimal form 0.24(166…) or percentage form 24(.166..) Ignore subsequent incorrect attempts to write the correct answer in a different form.

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Question	Answer	Mark	Mark scheme	Additional guidance
21 **Q6**	14	P1 P1 P1 A1	for process to find total number of boys, 40 – 22 (= 18) **OR** the number of girls who travel by bus 10 – 6 (= 4) for process to find the number of girls who cycle to school 22 – "4" – 9 (=9) **OR** the number of boys who walk to school "18" – 6 – 7 (= 5) full process to find the total number of students who walked to school eg "5"+ 9 or 40 – (6+ 7 + "4" + "9") cao	<table><tr><td></td><td>W</td><td>C</td><td>B</td><td></td></tr><tr><td>boy</td><td>5</td><td>(7)</td><td>(6)</td><td>18</td></tr><tr><td>girl</td><td>(9)</td><td>9</td><td>4</td><td>(22)</td></tr><tr><td></td><td>14</td><td>16</td><td>(10)</td><td>(40)</td></tr></table> Note 16 is 7+9 and 10 is 6+4 6+7 is 13 and 4+9=13 may be seen as intermediate steps

Paper: 1MA1/3F

Question	Answer	Mark	Mark scheme	Additional guidance
9 **Q7**	4 **5** 23 **32** **8** 9 7 24 **12** **14** 30 **56**	B3 (B2 (B1	for a fully correct table for at least 7 figures correctly placed) for the given values correctly placed in the table or one correct row or column)	Given values in bold Given values: 5, 32, 8, 12, 14, 56

Paper: 1MA1/1F

Question	Answer	Mark	Mark scheme	Additional guidance
14	Completed table	M1	for correctly entering **two** of 11, 2, 5, 10 (= 30 – 20)	4 2 4 10 1 8 11 20 5 10 15 30
Q8		M1	(indep) for using the rule for the top row eg. ([10 males] – [2 male tennis]) ÷ 2 (=4)	Award 2nd M1 if top row is correct
		A1	for complete correct table	

Paper: 1MA1/2F

Question	Answer	Mark	Mark scheme	Additional guidance
17	7 22 15	C1	for correctly placing one of the given values in the diagram eg 38 women or 15 men email	
Q9	38 29 9	M1	for 60 – 38 (=22) **or** 22 (men) correctly placed in the diagram **or** 60 – 38 – 15 (=7) **or** 7 (men texting) correctly placed in the diagram	
		M1	for a method to find 60% of 60, eg. 60 × 0.6 (= 36)	May be implied by the total number of texts in the frequency diagram being 36
		M1	for calculating with 60% of 60 eg "36" – ("22" – 15) (= 29) **or** "36" – "7" (=29) **or** (60 – "36") – 15 (= 9)	9 or 29 on the diagram (women branch) gets the two M marks for finding and calculating with 60% of 60
		A1	for a fully correct frequency diagram	If probabilities used instead of frequencies then maximum of C1M1M1M1A0 can be awarded

Paper: 1MA1/3F										
Question	**Answer**	**Mark**	**Mark scheme**			**Additional guidance**				
23 **Q10**	22	P1 P1 A1	for process to find total choosing German eg 200 – 104 – 70 (=26) for complete process to find boys choosing Spanish eg 90 – (60 + ("26" – 18)) cao	for process to find girls choosing French (44) or total number of girls (110) for complete process to find boys choosing Spanish eg 70 – ("110" – "44" – 18)			F	S	G	total
					girls	**44**	**48**	18	**110**
					boys	60	**22**	**8**	90
					total	104	70	**26**	200

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
17 (a)	Frequency diagram See end of m/s	C3 (C2 (C1	for a fully correct frequency diagram for at least 5 correct values in the frequency diagram) for at least 3 correct values in the frequency diagram)	If probabilities used instead of frequencies then maximum of C2 can be awarded
(b) **Q11**	$\dfrac{12}{72}$	M1	for $\dfrac{a}{72}$ where $0 < a < 72$ and a is an integer **or** $\dfrac{12}{b}$ where $b > 12$ and b is an integer **or** $12 : 72$ **or** ft their values for 72 and/or 12 from (a)	
		A1	for $\dfrac{12}{72}$ oe or ft (a)	Accept equivalent decimal or percentage forms of probability Ignore errors in cancelling of their $\dfrac{12}{72}$

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
13 **Q12**	53 19 **67** 139 **17** 26 **59** 70 **45** **83** 198	B3 (B2 (B1	for a fully correct table for at least 7 figures correctly placed) for the 4, 5 or 6 values correctly placed)	