Paper: 1MA1/3F				
Question	Working	Answer	Mark	Notes
6 (a)		Reason	C1	reason, eg must order numbers first
(b) **Q1**		10	M1	for 22 − 12 or 12 − 22 or 12 to 22
			A1	cao
(c)		16	M1	for adding the numbers and dividing by 7
			A1	cao

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
15 (a) **Q2**	Incorrect order of operation	C1	for identifying an incorrect order of operation, eg should be 12 – 8 **or** "should multiply first"	Showing that 12 – 2 × 4 is 4 (and not 40) is insufficient for this mark; the explanation should focus on what Jenny has done wrong.
(b)	Statement	C1	for stating that the range is the difference between the greatest and least values, oe **or** stating that he didn't put numbers in order	Stating the correct calculation for the range (8 – 1) or stating the (correct) range as 7 is sufficient for this mark.

Paper: 1MA1/2F

Question	Answer	Mark	Mark scheme	Additional guidance
9 (a)	5	M1	for listing numbers in order, eg 3 4 4 6 8 9 **or** answer of 4, 6 **or** answer of 8.5	Condone one error or additional number
Q3		A1	cao	
(b)	2 6	M1	for $\dfrac{2}{x}$ with $x > 2$ **or** for $\dfrac{y}{6}$ with $y < 6$	Incorrect notation can imply a correct method. Award M1 for eg 2 out of 6 **or** 2 in 6 **or** 2 : 6
		A1	for $\dfrac{2}{6}$ oe	Accept any equivalent fraction, decimal form 0.33(33..) or percentage form 33(.33..)%
(c)	3, 6	P1	for at least one 3 **or** 5×5 (= 25)	Numbers may be seen on the cards (but the answer line takes precedence)
		A1	for 3, 6 or 6, 3	

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
13 **Q4**	43	M1	for identifying 74 and 31 as the key numbers	It is insufficient to identify these on the diagram (eg as 1, 4) –43 as an answer implies M1
		A1	cao	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
5 **Q5**	11	B1	cao	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
7 (a) **Q6**	7	P1	for process to find the number of blue flowers, eg $30 - 8 - 10 - 5$	Allow one error
		A1	cao	
(b)	white	B1	for white or ft from (a)	Must be seen clearly for ft

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
18 **Q7**	13	P1	for at least two of 3×5 (=15) or 2.5×8 (=20) or 1.5×14 (=21) or 1×10 (=10) **or** for 3×5 + 2.5×8 + 1.5×14 + 1×10 (=66)	Note 66 on its own will score this mark
		P1	for process to find length of all 2m planks, eg. 92 – (3×5 + 2.5×8 + 1.5×14 + 1×10) (= 26) or 92 – "15" – "20" – "21" – "10" (= 26)	If no calculations are seen for products allow one error in "15", "20", "21", "10"
		A1	cao	13 in the correct place in the table should be accepted as the final answer

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
8 (a) (b) **Q8**	102 82	B1 M1 A1	cao for a method of extracting the correct 4 numbers from the table, adding all 4 numbers and then dividing by 4 eg (143+121+45+19) ÷ 4 or "328" ÷ 4 cao	

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
3 **Q9**	3	B1	cao	

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
15 (a)	774	M1	for at least three of $0 \times 3 (= 0)$ or $1 \times 57 (= 57)$ or $2 \times 84 (= 168)$ or $3 \times 75 (= 225)$ or $4 \times 81 (= 324)$ **or** for $0 \times 3 + 1 \times 57 + 2 \times 84 + 3 \times 75 + 4 \times 81$	Note if 2 non zero products are seen award M1 Use of the figure 777 is enough for M1
Q10		A1	cao	
(b)	3	M1	for method to begin to work with the median, eg $300 \div 2 (= 150)$	Accept 301 in place of 300
		A1	cao	NB mean = 2.58

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
18 **Q11**	13.2	P1 P1 A1	process to convert decimal time, eg 25.3 × 60 (= 1518) or 0.3 × 60 (= 18) **OR** process to work with mean, eg [time] ÷ 115 (= 0.22) or 1÷ (115 ÷ [time]) (= 0.22) full process to work out mean time allocated for appointment, eg "1518" ÷ 115 or "0.22" × 60 cao	[time] could be 25.3 or any other time that has been incorrectly changed from 25.3 hours

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
14 (a)	7	B1	cao	
(b)	5	B1	cao	
(c) **Q12**		C2 (C1	ft for correct comparison of both medians and ranges, eg. median of boys shoe sizes is greater than the median of the girls shoe sizes and the range of the boys shoe sizes is greater than the range of the girls shoe sizes. ft for a correct comparison of either medians or ranges)	Simply quoting values for median, range is insufficient; they must be compared.

Paper 1MA1: 1F				
Question	Working	Answer	Mark	Notes
27 (a)		365	M1	*fx* with *x* consistent within intervals eg 200×1 , 300×11 , 400×5 , 500×0 , 600×3, if 200, 3300, 2000, 0, 1800 are seen without working then condone 1 error
Q13			M1	(dep) $\Sigma fx \div \Sigma f$ eg "7300" $\div 20$
			A1	Cao
(b)		Comment	C1	for comment about outliers affecting mean

Paper: 1MA1/3F				
Question	Working	Answer	Mark	Notes
17 (a)		12	B1	cao
(b) **Q14**		Explanation	C1	No with statement about not being mutually exclusive events eg a person could be in both categories

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
23 (a)	5	M1	"2" ÷ 40 × 100	"2" comes from their reading of the height of the 20 to 24 column
		A1	cao	
(b)	9.5 shown	M1	for frequencies of 11, 8, 13, 6 and 2 (allow one error) **or** for midpoints 2, 7, 12, 17 and 22	May be seen on chart
		M1	for finding at least 4 products *fx* consistently within interval (including end points)	
Q15		M1	for Σ"*fx*" ÷ ("11" + "8" + "13" + "6" + "2") **or** (11×2 + 8×7 + 13×12 + 6×17 + 2×22) ÷ 40 **OR** Σ"*fx*" (=380) **and** 9.5 × ("11" + "8" + "13" + "6" + "2") (=380)	Evidence of two different calculations that should lead to 380 are required for this mark
		C1	for correct figures showing the answer or accurate figures to compare from correct working eg 380 from two calculations	

Paper: 1MA1/2F

Question		Answer	Mark	Mark scheme	Additional guidance
16 **Q16**		5	P1	for start to process eg 7 × 20 (= 140) **and** 3 × 21 (= 63) **or** (7 × 20) + (3 × 21) + 22 (= 225)	May be written near table 7 × 20 (= 140) **and** 3 × 21 (= 63) minimum requirement for P1
			P1	for a complete process to find the missing frequency eg (320 – "225") ÷ 19 **or** 320 – "225" = (95) **and** "95" ÷ 19	May be seen as two calculations
			A1	cao	Please check the table. Correct answer in the table without working award 3 marks

Paper: 1MA1/1F

Question		Answer	Mark	Mark scheme	Additional guidance
25 **Q17**		No (supported)	P1	for process to find total weight of the 4 red bricks, eg. 5 × 4 (= 20) **..** for process to find total weight of the 5 blue bricks, eg. 9 × 5 (= 45)	May be seen next to statements 20 must be clearly referenced to the red bricks. 5 + 9 + 6 = 20 scores no marks
			P1	for process to find total weight of all 10 bricks, eg. "20" + "45" + 6 (= 71)	
			C1	No with correct supporting evidence **Acceptable examples** No, it is 7.1 She is wrong, it is 0.1 more No, (the total weight is) 71 not 70 **Not acceptable examples** Yes …. No, it is 71	Candidates working in grams will need to give 7100 and 7000 for example as comparable figures.

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
25	18.6	M1	for finding 4 products within intervals (including end points)	Min fx / Max fx table: Min fx: 5, 20, 105, 160 Max fx: 10, 30, 140, 200
Q18		M1	for Σ"fx" ÷ (1+ 2 + 7 + 8) **or** (7.5×1 +12.5×2 + 17.5×7 +22.5×8) ÷ (1+ 2 + 7 + 8) **or** ("7.5" + "25" + "122.5" + "180") ÷ "18" **or** "335" ÷ "18"	Σ"fx" **must** come from 4 products fx within intervals (including end points)
		A1	for 18.6(111…)	

The Additional guidance table for Q25:

Min fx	Max fx
5	10
20	30
105	140
160	200

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
18 (a)	2	B1	cao	
(b)	81	M1	for working with values from the table eg (0 × 4), (1 × 3), … with at least 3 products shown correct **or** (0 +), 3, 14, 15, 24, 25 with at least 3 correct	Check working space or next to the table. Zero points may not be seen so accept without 0 × 4, 0
Q19		A1	cao SC B1 for 85	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
16 (a)	Explanation	C1	for explanation **Acceptable examples** the number of points only goes up to 4 because the median is 2 no-one scored 5 points (implies number of points scored was less than 5) **Not acceptable examples** she was right since 5 is the middle number she has used the wrong column (insufficient) the median is 3	Explanations must relate to median number of points and not median of the frequency values
(b) **Q20**	Explanation	C1	for explanation identifying the error in the working **Acceptable examples** $0 \times 1 = 0$ or 0×1 is not 1 Anything times zero is zero **Not acceptable examples** the correct answer is 37	

26	20 or 24 or 168	B1	for identification of the range of the girls (20) the range (24) the median (168) of the boys	
Q21	Comparison	C2	for a correct comparison of medians a correct comparison of ranges supported by correct figures. eg the median height for girls (165) is less than the median height for boys (168) and the range for girls (20) is less than the range for boys (24) At least one comparison must be in context referring to height or quoting cm.	Simply quoting values for median, range is insufficient; they must be compared.
		(C1	for a correct comparison of medians a correct comparison of ranges that could ft their incorrect figure(s))	Context not necessary for C1

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
20	4	P1	for start to process, eg $65 + 100 + 3 \times 5 + 1 \times 20$ (= 200) **or** 3×80 (= 240)	May be part of an algebraic statement eg $65 + 100 + 35 + 10x$
Q22		P1	for $65 + 100 + 3 \times 5 + 1 \times 20$ (= 200) **and** 3×80 (= 240) **or** "240" – 100 – 65 (=75)	
		P1	for process to find value of £10 notes in Carl's wallet, eg "240" – "200" (= 40) **or** for "75" – $3 \times 5 - 1 \times 20$ (=40)	
		A1	cao	NB 80 – 35 (=45) leading to 4 gets 0 marks

Paper: 1MA1/2F

Question	Answer	Mark	Mark scheme	Additional guidance
17 **Q23**	176	M1 M1 A1	for a method to find 5 products within intervals (including end points) for Σ"fx" ÷ (8 + 14 + 24 + 30 + 4) **or** (155×8 + 165×14 + 175×24 + 185×30 + 195×4) ÷ (8 + 14 + 24 + 30 + 4) **or** ("1240" + "2310" + "4200" + "5550" + "780") ÷ "80" **or** "14080" ÷ "80" cao	<table><tr><td>Min *fx*</td><td>Max *fx*</td></tr><tr><td>1200</td><td>1280</td></tr><tr><td>2240</td><td>2380</td></tr><tr><td>4080</td><td>4320</td></tr><tr><td>5400</td><td>5700</td></tr><tr><td>760</td><td>800</td></tr></table>Σ"fx" **must** come from 5 products fx within intervals (including end points)

Paper: 1MA1/3F

Question	Answer	Mark	Mark scheme	Additional guidance
28 **Q24**	158	P1 P1 A1	for a first step in the process eg 50 × 167.6 (=8380) or 20 × 182 (=3640) for a complete process eg (50 × 167.6 – 20 × 182) ÷ 30 or $\dfrac{8380-3640}{30}$ or 4740 ÷ 30 cao	