

Mark Scheme

Q1.

Question number	Working	Answer	Additional guidance	Mark
a	$13 - (9-6) = 13 - 3 = 10$ $20 - 9 = 11$	$\frac{10}{11}$	M1 for $\frac{10}{x}$ or $\frac{y}{11}$ (where $x > 10$ and $y < 11$) OR for 10 and 11 correctly identified but not written as a fraction A1	(2)

Question number	Working	Answer	Additional guidance	Mark
b		Suitable straight line drawn	B1	(1)

Question number	Working	Answer	Additional guidance	Mark
c		Answer in the range 50-60	B1 for answer in the range 50-60 OR for correct ft from their straight line of best fit	(1)

(QU18 LMA11/01, June 2021)

Q2.

Question number	Working	Answer	Additional Guidance	Mark
	$((0 \times 2) + (1 \times 7) + (2 \times 10) + (3 \times 5)) \div 24$ $(0' + 7' + 20' + 15') \div 24$ $42' \div 24$	1.75	M1 for multiplying f by x (can be implied by a least two correct products) M1 for Σfx / $\Sigma f'$ A1	3

(QU27 LMA11/01, Oct 2022)

Q3.

Question number	Working	Answer	Additional Guidance	Mark
a	$0 \times 4 = 0$ $1 \times 8 = 8$ $2 \times 13 = 26$ $3 \times 9 = 27$ $4 \times 6 = 24$ $0 + 8 + 26 + 27 + 24 = 85$ $4 + 8 + 13 + 9 + 6 = 40$ $85 \div 40$	2.125	M1 for $f \times x$ (can be implied by at least 3 correct products) M1 (dep) ' Σfx ' \div ' Σf ' A1 (accept rounded or truncated answer from correct working)	(3)

Question number	Working	Answer	Additional Guidance	Mark
b	eg. Sample size too small Wrong place to ask people Their favourite doesn't mean the best	[Two acceptable reasons]	B2 for two correct reasons (B1 for one correct reason)	(2)

(QU29 LMA11/01, June 2022)

Q4.

Question number	Working	Answer	Additional guidance	Mark
a		10.91	B1	(1)

Question number	Working	Answer	Additional guidance	Mark
b	$(9.44 + 10.44 + 7.22 + 10.91 + 8.69 + 17.78 + 10.91) \div 7$ $75.39 \div 7$	10.77	M1 correct method A1	(2)

(QU16 LMA11/01, Oct 2021)

Q5.

Question number	Working	Answer	Additional guidance	Mark												
	<table> <thead> <tr> <th></th> <th>Sprinter A</th> <th>Sprinter B</th> </tr> </thead> <tbody> <tr> <td>Mean</td> <td>12.18</td> <td>12.275</td> </tr> <tr> <td>Median</td> <td>11.6</td> <td>12.25</td> </tr> <tr> <td>Range</td> <td>3.3</td> <td>0.2</td> </tr> </tbody> </table>		Sprinter A	Sprinter B	Mean	12.18	12.275	Median	11.6	12.25	Range	3.3	0.2	<p>Decision supported by correct evidence eg. Sprinter A (because they are faster on average) OR Sprinter B (because they are more consistent)</p>	<p>M1 for correct method to find average or range for one sprinter M1 for correct method to find comparable average or range for both sprinters A1 for correct decision with correct, comparable average and/or range</p>	(3)
	Sprinter A	Sprinter B														
Mean	12.18	12.275														
Median	11.6	12.25														
Range	3.3	0.2														

(QU29 LMA11/01, Oct 2020)

Q6.

Question number	Working	Answer	Additional guidance	Mark
(a)		[Correct Bar up to 3]	B1	(1)

Question number	Working	Answer	Additional guidance	Mark
(b)	$\frac{4+2}{3+5+6+4+2}$	$\frac{6}{20}$ or 0.3 or 30% oe	B2 for 30% oe B1 for 6 as numerator OR 20 as a denominator If B0 scored: SC: B1 for “4+2”/”3+5+6+4+2” OR for 6 and 20 but in incorrect format (eg. 6:20)	(2)

(QU18 LMA11/01, June 2019)

Q7.

Question number	Working	Answer	Additional guidance	Mark
		Appropriate line of best fit drawn	B1	(1)

(QU17 LMA11/01, Oct 2021)

Q8.

Question number	Answer	Mark
	A - 40	(1)

(QU11 LMA11/01, June 2019)

Q9.

Question number	Working	Answer	Additional Guidance	Mark
	eg. Bigger sample size Chosen at random Less chance of bias They are from a range of different year groups etc.	[Two correct reasons]	B2 for two correct reasons with no incorrect reasons Otherwise B1 for at least one correct reason, regardless of any incorrect reasons	2

(QU23 LMA11/01, Oct 2022)

Q10.

Question number	Answer	Mark
	The only correct answer is A - 8 B is not the correct answer because it is one sibling or less C is not the correct answer because it is one sibling or more D is not the correct answer because it is the number aged 13	(1)

(QU05 LMA11/01, June 2021)

Q11.

Question number	Working	Answer	Additional Guidance	Mark
	$80 - 35 = 45$ $45 - 19 = 26$ $26 + 12$ Or $35 - 12 = 23$ $23 + 19 = 42$ $80 - 42$	38	M1 for correct method or for completing at least 3 values in the table correctly A1	2

(QU19 LMA11/01, Oct 2022)

Q12.

Question number	Answer	Mark
	A - 2	(1)

(QU06 LMA11/01, Oct 2021)

Q13.

Question number	Answer	Mark
	B - 90	(1)

(QU11 LMA11/01, Oct 2020)

Q14.

Question number	Answer	Mark
	A – reads 25 off y-axis and finds x-coordinate of point drawn B – reads 25 off x-axis and finds y-coordinate of point drawn C – reads 25 off y-axis then uses line of best fit to find x-coordinate D – CORRECT ANSWER	(1)

(QU11 LMA11/01, June 2022)

Q15.

Question number	Answer	Mark
	A is not the correct answer because it is the mode B is not the correct answer because it is the median C is not the correct answer because it is the range The only correct answer is D - 5.74	(1)

(QU03 LMA11/01, June 2021)

Q16.

Question number	Working	Answer	Additional guidance	Mark
(a)		PS, PT, QS, QT, RS, RT oe	M1 for at least 4 correct answers and none incorrect, or for all 6 correct answers with repeats A1	(2)
(b)	$107 \div 3 = 35.66\dots$ OR Median = 36 $64 \div 2 = 32$ $68 \div 2 = 34$ $103 \div 3 = 34.33\dots$ OR Median = 35 $73 \div 2 = 36.5$	Piotr and Tabassum	M1 for method to find at least 3 correct averages M1 for method to find 5 correct averages A1 for correct answer AND 5 correct averages	(3)

(QU23 LMA11/01, June 2019)

Q17.

Question number	Answer	Mark
	A - Reads from 20 on y-axis to point plotted B - Reads from 20 on y-axis to line of best fit C - CORRECT ANSWER D - Reads from 20 on x-axis to point plotted	1

(QU11 LMA11/01, Oct 2022)

Q18.

Question number	Answer	Marks
	D 47.5	(1)

(QU04 LMA11/01, SAM 0)

Q19.

Question number	Answer	Mark
	C - 37	(1)

(QU06 LMA11/01, June 2019)

Q20.

Question number	Answer	Mark
	A - 1	(1)

(QU03 LMA11/01, Oct 2020)

Q21.

Question number	Answer	Mark
	A - 50	(1)

(QU08 LMA11/01, Oct 2021)

Q22.

Question number	Working	Answer	Notes	Marks
(a)		Positive (correlation)	B1 ignore other words around positive, e.g. weak/strong positive	(1)

Question number	Working	Answer	Notes	Marks
(b)		48–58 inclusive	M1 for appropriate line of best fit A1 53 (± 5)	(2)

(QU28 LMA11/01, SAM 0)

Q23.

Question number	Answer	Mark
	C - 11, 14, 22	(1)

(QU15 LMA11/01, June 2019)

Q24.

Question number	Answer	Mark
	D - No correlation	(1)

(QU05 LMA11/01, Oct 2021)

Q25.

Question number	Answer	Mark
	A is not the correct answer because it says direct B is not the correct answer because is not a type of correlation The only correct answer is C - Negative D is not the correct answer because line of best fit does not go up	(1)

(QU04 LMA11/01, June 2021)