
GCSE Mathematics

Scatter Graphs and Correlation

Mark Scheme - Grades 4-6

M = method mark, A = accuracy mark (dependent on the preceding M mark), B = independent mark.

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Edexcel-style questions

Q1 Grade 4 Edexcel style **Total: 1**

Part	Mark scheme	Marks
(a)	positive correlation	B1

Q2 Grade 4 Edexcel style **Total: 1**

Part	Mark scheme	Marks
(a)	68	B1

Q3 Grade 5 Edexcel style **Total: 2**

Part	Mark scheme	Marks
(a)	read from the line of best fit at $x = 6$	M1
(a)	70	A1

Q4 Grade 5 Edexcel style **Total: 2**

Part	Mark scheme	Marks
(a)	the outlier does not fit the positive trend of the other points	M1
(a)	(2, 95)	A1

Q5 Grade 6 Edexcel style **Total: 2**

Part	Mark scheme	Marks
(a)	no	B1
(a)	both are caused by hot weather (a third factor) - correlation does not imply causation	B1

AQA-style questions

Q6 Grade 4 AQA style

Total: 1

Part	Mark scheme	Marks
(a)	negative correlation	B1

Q7 Grade 4 AQA style

Total: 1

Part	Mark scheme	Marks
(a)	£7,000	B1

Q8 Grade 5 AQA style

Total: 2

Part	Mark scheme	Marks
(a)	read from the line of best fit at $x = 50$	M1
(a)	12 litres	A1

Q9 Grade 5 AQA style

Total: 2

Part	Mark scheme	Marks
(a)	the outlier does not fit the negative trend of the other points	M1
(a)	(7, 20)	A1

Q10 Grade 6 AQA style

Total: 2

Part	Mark scheme	Marks
(a)	no	B1
(a)	both increase with age, which is the underlying factor - correlation does not imply causation	B1

OCR-style questions

Q11 Grade 4 OCR style

Total: 1

Part	Mark scheme	Marks
(a)	no correlation	B1

Q12 Grade 4 OCR style

Total: 1

Part	Mark scheme	Marks
(a)	80	B1

Q13 Grade 5 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	read from the line of best fit at $x = 24$	M1
(a)	33	A1

Q14 Grade 5 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	the outlier does not fit the positive trend of the other points	M1
(a)	(16, 60)	A1

Q15 Grade 6 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	yes	B1
(a)	colder weather directly causes people to buy more coats to keep warm, so this is a plausible direct causal link	B1

Teachably-style questions

Q16 Grade 4 Teachably style

Total: 1

Part	Mark scheme	Marks
(a)	positive correlation	B1

Q17 Grade 4 Teachably style

Total: 1

Part	Mark scheme	Marks
(a)	42	B1

Q18 Grade 5 Teachably style

Total: 2

Part	Mark scheme	Marks
(a)	read from the line of best fit at $x = 65$	M1
(a)	165 cm	A1

Q19 Grade 5 Teachably style

Total: 2

Part	Mark scheme	Marks
(a)	the outlier does not fit the positive trend of the other points	M1
(a)	(5, 55)	A1

Q20 Grade 6 Teachably style

Total: 2

Part	Mark scheme	Marks
(a)	no	B1
(a)	both are caused by the size of the fire (a third factor) - correlation does not imply causation	B1

END OF PAPER

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