

GCSE Mathematics (1MA1) – Achieving a Grade 3 2F

Student-friendly mark scheme

Please note that this mark scheme is not the one used by examiners for making scripts. It is intended more as a guide to good practice, indicating where marks are given for correct answers. As such, it doesn't show follow-through marks (marks that are awarded despite errors being made) or special cases.

It should also be noted that for many questions, there may be alternative methods of finding correct solutions that are not shown here – they will be covered in the formal mark scheme.

NOTES ON MARKING PRINCIPLES

Guidance on the use of codes within this mark scheme

M1 – method mark. This mark is generally given for an appropriate method in the context of the question. This mark is given for showing your working and may be awarded even if working is incorrect.

P1 – process mark. This mark is generally given for setting up an appropriate process to find a solution in the context of the question.

A1 – accuracy mark. This mark is generally given for a correct answer following correct working.

B1 – working mark. This mark is usually given when working and the answer cannot easily be separated.

C1 – communication mark. This mark is given for explaining your answer or giving a conclusion in context supported by your working.

Some questions require all working to be shown; in such questions, no marks will be given for an answer with no working (even if it is a correct answer).

Question 1 (Total 4 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
(a)	(2, 1)	B1	This mark is given for the correct answer only
(b)	For example: As the amount of rainfall decreases, the number of hours of sunshine increases	C1	This mark is given for a valid description of the relationship
(c)		M1	This mark is given for a suitable line of best fit drawn
	3.5	A1	This mark is given for an answer in the range 3 to 4

Question 2 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	530	B1	This mark is given for the correct answer only

Question 3 (Total 3 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$180 - 116 - 25 = 39$	M1	This mark is given for a method to find the angle ACB
	$x = 39$	A1	This mark is given for the correct answer only
	Angles in a triangle add up to 180 and Vertically opposite angles are equal	C1	This mark is given for a two correct reasons stated

Question 4 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$3x + 2y$	M1	This mark is given for either $3x$ or $2y$ seen
		A1	This mark is given for the correct answer only

Question 5 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$(0 \times 3) + (1 \times 57) + (2 \times 84) + (3 \times 75) + (4 \times 81)$ $= 0 + 57 + 168 + 225 + 324$	M1	This mark is given for a method to find the total number of social media accounts
	774	A1	This mark is given for the correct answer only

Question 6 (Total 4 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	Offer 1 = 6 pints for £1.50	P1	This mark is given for a process to find the price of milk from offer 1
	Offer 2 = 8 pints for £1.92	P1	This mark is given for a process to find the price of milk from offer 2
	Offer 1: $\text{£}1.50 \div 6 = 25\text{p}$ per pint Offer 2: $\text{£}1.92 \div 8 = 24\text{p}$ per pint	P1	This mark is given for a process to find the price per pint for each offer
	Offer 2 (4 pints) gives the better value for money	A1	This mark is given for a valid answer supported by correct working

Question 7 (Total 3 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$10m - 30 = 40$	M1	This mark is given for a method to expand the left-hand side of the equation
	$10m = 70$	M1	This mark is given for forming an equation in terms on m
	$m = 7$	A1	This mark is given for the correct answer only

Question 8 (Total 4 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$18 \div 4.5 = 4$ or $8 \times 4.5 = 36$ (18 litres = 4 gallons or 8 gallons = 36 litres)	P1	This mark is given for a process to convert between litres and gallons
	$40.8 \div 0.85 = 48$ or $27 \times 0.85 = 22.95$ (£40.80 = €48 or €27 = £22.95)	P1	This mark is given for a process to convert between euros and pounds
	Sam pays £22.95 for 4 gallons Leo pays £20.40 for 4 gallons or Sam pays €27 for 18 litres Leo pays €24 for 18 litres	P1	This mark is given for a process to make a comparison between petrol prices
	For example: Sam is wrong, petrol is cheaper in Wales	C1	This mark is given for the valid conclusion supported by correct working

Question 9 (Total 2 marks)

Part	Working an or answer examiner might expect to see	Mark	Notes
	$6n + 1$	B2	These marks are given for a fully correct answer (B1 is given for $6n + c$, where c is an integer $\neq 1$ or is missing)

Question 10 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$4x + 12 + 28 - 14x$	M1	This mark is given for a method to expand at least one bracket
	$40 - 10x$	A1	This mark is given for the correct answer only

Question 11 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	Hexagon	B1	This mark is given for the correct answer only

Question 12 (Total 3 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$62 \div 12.4 = 5$	P1	This mark is given for a process to find the scale factor
	5×9.4	P1	This mark is given for a process to find the width of the building
	47	A1	This mark is given for the correct answer only

Question 13 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	110	B1	This mark is given for an answer in the range 108 to 112

1MA1 – Aiming for Grade 2 2F
Edexcel averages: mean scores of students who achieved grade

Qn	Skill tested	Mean score	Max score	Mean %	Edexcel averages: mean scores of students who achieved grade						
					ALL	5	4	3	2	1	U
1a	Scatter graphs of bivariate data	0.57	1	57	0.57	0.89	0.75	0.60	0.42	0.22	0.12
1b	Correlation and causation	0.47	1	47	0.47	0.82	0.66	0.49	0.31	0.15	0.07
1c	Line of best fit	0.82	2	41	0.82	1.44	1.16	0.85	0.55	0.31	0.20
2	Metric Conversion of units	0.57	1	57	0.57	0.89	0.71	0.59	0.45	0.34	0.27
3	Properties of angles	1.65	3	55	1.65	2.59	2.20	1.73	1.19	0.56	0.13
4	Forming expressions	1.11	2	56	1.11	1.82	1.44	1.15	0.84	0.56	0.23
5	Frequency tables	1.07	2	54	1.07	1.74	1.50	1.14	0.70	0.28	0.07
6	Ratio in real context	2.17	4	54	2.17	3.03	2.44	2.20	1.99	1.55	0.92
7	Solve linear equations	1.58	3	53	1.58	2.81	2.23	1.64	1.03	0.55	0.23
8	Currency conversions	2.00	4	50	2.00	3.33	2.82	2.14	1.25	0.46	0.10
9	The nth term of a sequence	0.97	2	49	0.97	1.71	1.33	0.99	0.69	0.36	0.10
10	Expand expressions	0.98	2	49	0.98	1.73	1.42	0.99	0.57	0.23	0.06
11	Conventional geometrical terms and notation	0.47	1	47	0.47	0.75	0.62	0.48	0.33	0.20	0.09
12	Scale factors, scale diagrams and maps	1.43	3	48	1.43	2.71	2.18	1.43	0.68	0.19	0.05
13	Measuring angles	0.45	1	45	0.45	0.86	0.63	0.46	0.30	0.16	0.09
		16.31	32.00	50.97	16.31	27.12	22.09	16.88	11.30	6.12	2.73