

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

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 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	28, 33	B1	This mark is given for the correct answer only

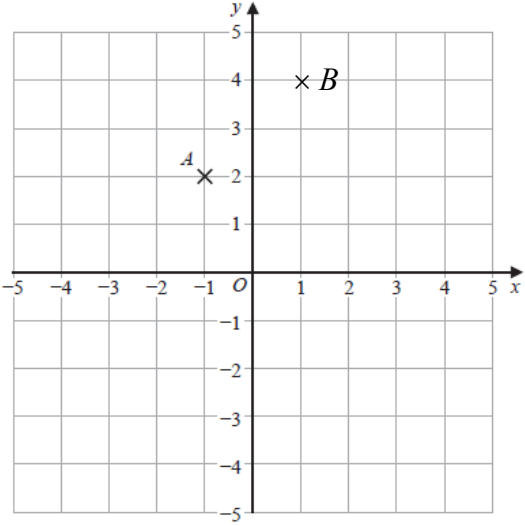
Question 2 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$121 - 19 = 102$	B1	This mark is given for the correct answer only

Question 3 (Total 1 mark)

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

Question 4 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
(a)	$(-1, 2)$	B1	This mark is given for the correct answer only
(b)		B1	This mark is given for the correct point <i>B</i> marked on the grid

Question 5 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
(a)	5	B1	This mark is given for the correct answer only

Question 6 (Total 1 mark)

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

Question 7 (Total 1 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	<p>A horizontal number line with tick marks at 0, $\frac{1}{2}$, and 1. A cross is drawn at the 0 mark.</p>	B1	This mark is given for a cross placed at 0

Question 8 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	Two from 1, 2, 3, 4, 6, 12	B1	This mark is given for any two correct factors

Question 9 (Total 1 mark)

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

Question 10 Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	2000	B1	This mark is given for a correct answer only

Question 11 (Total 3 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	Apples: $86 + 75 + 92 = 253$ Oranges: $68 + 80 + 76 = 224$	P1	This mark is given for a process to work out the number of apples and oranges sold
	$253 - 224$	P1	This mark is given for a process to work out the difference between the number of apples and oranges sold
	29	A1	This mark is given for the correct answer only

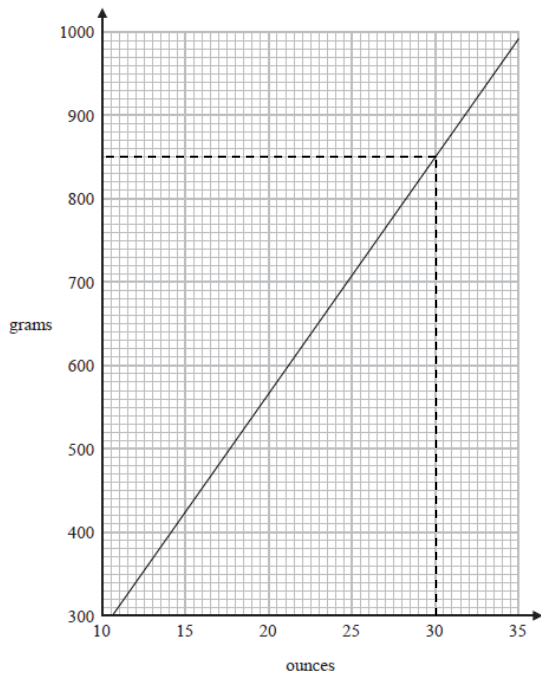
Question 12 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$\frac{33.81}{2.5}$	M1	This mark is given for 33.81 or 2.5 seen
	13.524	A1	This mark is given for the correct answer only

Question 13 (Total 1 mark)

Part	Working an or answer examiner might expect to see	Mark	Notes
	6m	B1	This mark is given for the correct answer only

Question 14 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	 <p>30</p>	B1	This mark is given for the correct answer only

Question 15 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	<p>Average monthly temperature (°C)</p> <p>Months</p> <p>6 (months)</p>	B1	This mark is given for the correct answer only

Question 16 (Total 3 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$35 \times 4 = 140$	M1	This mark is given for a method to find the number of nails Sinita needs
	$48 \times 3 = 144$	A1	This mark is given for a method to find the number of nails Sinita has
	For example: Yes, Sinita has 4 more nails than she needs Yes, Sinita can make one more frame	C1	This mark is given for a valid conclusion supported by correct working

Question 17 (Total 1 mark)

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

Question 18 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$\frac{35}{100}$	B1	This mark is given for a correct answer only (or equivalent)

Question 19 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	For example: 11, 10 or 9, 6	B1	This mark is given for a two correct terms stated

Question 20 (Total 1 mark)

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

Question 21 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$\frac{40.15}{8.03}$	M1	This mark is given for either 40.15 or 8.03 seen
	5	A1	This mark is given for the correct answer only

Question 22 (Total 4 marks)

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

Question 23 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$\frac{143 + 21 + 45 + 19}{4} = \frac{328}{4} = 82$	A1	This mark is given for the correct answer only

1MA1 – Grade 1 Springboard 3F

Edexcel averages: mean scores of students who achieved grade

Qn	Skill tested	Mean score	Max score	Mean %	ALL	5	4	3	2	1	U
1	Generate terms of a sequence	0.95	1	95	0.95	0.97	0.97	0.96	0.95	0.90	0.63
2	Apply four operations	0.97	1	97	0.97	0.99	0.98	0.98	0.96	0.90	0.63
3	Primes, factors, multiples	0.97	1	97	0.97	0.99	0.99	0.98	0.96	0.89	0.66
4	Coordinates in all four quadrants	0.95	1	95	0.95	0.99	0.98	0.97	0.93	0.82	0.58
		0.95	1	95	0.95	1.00	0.99	0.96	0.92	0.80	0.60
5	Properties of 3D shapes	0.90	1	90	0.90	0.97	0.95	0.92	0.88	0.79	0.55
6	Time series graphs	0.91	1	91	0.91	0.98	0.96	0.92	0.89	0.79	0.59
7	0-1 probability scale	0.93	1	93	0.93	0.99	0.98	0.97	0.93	0.78	0.36
8	Primes, factors, multiples	0.91	1	91	0.91	0.98	0.97	0.95	0.90	0.77	0.49
9	Roots and powers	0.92	1	92	0.92	1.00	0.99	0.97	0.91	0.76	0.47
10	Place value	0.91	1	91	0.91	0.96	0.95	0.93	0.88	0.76	0.49
11	Apply four operations	2.62	3	87	2.62	2.92	2.86	2.76	2.56	2.04	0.86
12	Use of calculator	1.73	2	87	1.73	1.94	1.84	1.77	1.65	1.36	0.88
13	Simplify expressions	0.81	1	81	0.81	0.93	0.87	0.82	0.77	0.67	0.50
14	Real life graphs	0.91	1	91	0.91	0.98	0.96	0.93	0.86	0.67	0.45
15	Time series graphs	0.76	1	76	0.76	0.82	0.79	0.76	0.73	0.64	0.44
16	Apply four operations	2.63	3	88	2.63	2.96	2.91	2.81	2.57	1.88	0.61
17	Fractions to decimals	0.88	1	88	0.88	0.99	0.96	0.90	0.81	0.62	0.33
18	Percentages to fractions	0.87	1	87	0.87	0.98	0.97	0.93	0.83	0.61	0.27
19	Generate terms of a sequence	0.84	1	84	0.84	0.92	0.91	0.86	0.79	0.61	0.35
20	Calculate exactly with fractions	0.87	1	87	0.87	0.99	0.98	0.95	0.84	0.59	0.28
21	Use of calculator	1.62	2	81	1.62	1.90	1.82	1.71	1.51	1.14	0.62
22	Median	0.74	1	74	0.74	0.92	0.86	0.78	0.66	0.50	0.31
23	Apply four operations	1.69	2	85	1.69	1.95	1.88	1.76	1.53	0.98	0.35
		27.24	31.00	88	27.24	30.02	29.32	28.25	26.22	21.27	12.30