



Functional Skills Level 1 MATHEMATICS

8361/1

Paper 1 Non-Calculator

Mark scheme

March 2023

Version: 1.0 Final



2 3 3 G 8 3 6 1 / 1 / M S

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Glossary for Mark Schemes

Functional Skills examinations are marked in such a way as to award positive achievement wherever possible. Thus, for Functional Skills Mathematics papers, marks are awarded under various categories.

If a student uses a method which is not explicitly covered by the mark scheme the same principles of marking should be applied. Credit should be given to any valid methods. Examiners should seek advice from their senior examiner if in any doubt.

M	Method marks are awarded for a correct method which could lead to a correct answer.
A	Accuracy marks are awarded when following on from a correct method. It is not necessary to always see the method. This can be implied.
B	Marks awarded independent of method.
ft	Follow through marks. Marks awarded for correct working following a mistake in an earlier step.
SC	Special case. Marks awarded for a common misinterpretation which has some mathematical worth.
M dep	A method mark dependent on a previous method mark being awarded.
B dep	A mark that can only be awarded if a previous independent mark has been awarded.
oe	Or equivalent. Accept answers that are equivalent. eg accept 0.5 as well as $\frac{1}{2}$
[a, b]	Accept values between a and b inclusive.
[a, b)	Accept values $a \leq \text{value} < b$
3.14 ...	Accept answers which begin 3.14 eg 3.14, 3.142, 3.1416
Use of brackets	It is not necessary to see the bracketed work to award the marks.

Examiners should consistently apply the following principles.

Diagrams

Diagrams that have working on them should be treated like normal responses. If a diagram has been written on but the correct response is within the answer space, the work within the answer space should be marked. Working on diagrams that contradicts work within the answer space is not to be considered as choice but as working, and is not, therefore, penalised.

Responses which appear to come from incorrect methods

Whenever there is doubt as to whether a student has used an incorrect method to obtain an answer, as a general principle, the benefit of doubt must be given to the student. In cases where there is no doubt that the answer has come from incorrect working then the student should be penalised.

Questions which ask students to show working

Instructions on marking will be given but usually marks are not awarded to students who show no working.

Questions which do not ask students to show working

As a general principle, a correct response is awarded full marks.

Misread or miscopy

Students often copy values from a question incorrectly. If the examiner thinks that the student has made a genuine misread, then only the accuracy marks (A or B marks), up to a maximum of 2 marks are penalised. The method marks can still be awarded.

Further work

Once the correct answer has been seen, further working may be ignored unless it goes on to contradict the correct answer.

Choice

When a choice of answers and/or methods is given, mark each attempt. If both methods are valid then M marks can be awarded but any incorrect answer or method would result in marks being lost.

Work not replaced

Erased or crossed out work that is still legible should be marked.

Work replaced

Erased or crossed out work that has been replaced is not awarded marks.

Premature approximation

Rounding off too early can lead to inaccuracy in the final answer. This should be penalised by 1 mark unless instructed otherwise.

Continental notation

Accept a comma used instead of a decimal point (for example, in measurements or currency), provided that it is clear to the examiner that the student intended it to be a decimal point.

Section A

Q	Answer	Mark	Comments
1	-29	B1	

Q	Answer	Mark	Comments
2	Two hundred (and) fifty six thousand seven hundred (and) one	B1	
	Additional Guidance		
	Ignore punctuation or incorrect spelling		

Q	Answer	Mark	Comments
3	(0).18	B1	oe
	Additional Guidance		
	Allow extra zeros eg 00.18 or 0.180		

Q	Answer	Mark	Comments
4	Three correct lines drawn with no incorrect lines	B1	mark intention
	Additional Guidance		
	Lines do not have to be ruled		

Q	Answer	Mark	Comments
5	34	B2	B1 39 or 5 seen or $35 + 4 - 7 + 2$
	Additional Guidance		
	$39 - 5 = 33$		B1
	$5 - 39 = -34$		B1
	$39 + 5 = 44$		B1
	$35 + 4 = 40, 40 - 7 = 33, 33 + 2 = 35$ (have done $35 + 4 - 7 + 2$ with arithmetical error)		B1
$35 + 4 = 40, 40 - 7 = 33, 33 - 2 = 31$ (two errors)		B0	

Q	Answer	Mark	Comments
6	$24 \div 8 (\times 5)$ or $3 (\times 5)$ or $5 \times 24 (\div 8)$ or $120 (\div 8)$ or $5 \div 8 (\times 24)$ or $0.625 (\times 24)$	M1	
	15	A1	allow $\frac{15}{1}$
	Additional Guidance		
	Answer $\frac{120}{8}$		M1A0
	$\frac{120}{192}$ oe		MOA0

Section B

Q	Answer	Mark	Comments
7 (a)	Alternative method 1		
	$28 \div 2$ or 14	M1	oe
	28 + their 14 or 42	M1dep	oe 1.5 × 28 or 42 implies M2
	26 × 0.2 or 5.2(0) or 26 × (1 – 0.2) or 20.8(0)	M1	oe eg 26 ÷ 5 build up methods must be complete
	(26 – their 5.2(0)) × 2 or 26 × (1 – 0.2) × 2 or 41.6(0)	M1dep	oe dep on previous M1 26 × 0.8 × 2 or 41.6(0) implies 3rd and 4th M1
	42 and 41.6(0) and AtoZ tickets or AtoZ is 40p cheaper	A2	A1 42 and 41.6(0) with no decision or incorrect decision or A1ft correct decision for their values with one value correct
	Alternative method 2		
	$28 \div 2$ or 14	M1	oe
	28 + their 14 or 42	M1dep	oe 1.5 × 28 or 42 implies M2
	0.2 × (26 × 2) or 10.4(0)	M1	oe build up methods must be complete
	(26 × 2) – their 10.4(0) or 41.6(0)	M1dep	oe dep on previous M1 0.8 × 52 or 41.6(0) implies 3rd and 4th M1
	42 and 41.6(0) and AtoZ tickets or AtoZ is 40p cheaper	A2	A1 42 and 41.6(0) with no decision or incorrect decision or A1ft correct decision for their values with one value correct

Mark scheme and additional guidance continue on the next page

7(a) cont'd	Alternative method 3		
	28 ÷ 2 or 14	M1	oe
	28 + their 14 or 42	M1dep	oe 1.5 × 28 or 42 implies M2
	26 × 0.2 or 5.2(0)	M1	oe implied by 20.8(0)
	26 – 26 × 0.2 or 20.8(0) and their 42 ÷ 2 or 21	M1	oe average cost per day their 42 must be their 2 day cost for Ticketz Direct
	20.8(0) and 21 and AtoZtickets or AtoZ is 20p cheaper	A2	A1 21 and 20.8(0) with no decision or incorrect decision or A1ft correct decision for their values with one value correct
	Additional Guidance		
	Answers 41.6(0) and 42 and AtoZ chosen is sufficient working	6 marks	
	Allow any indication of choosing their cheapest eg circling the advert		
	For the A1ft there must be a correct value for one website and a comparison with a value for the other website which cannot be the original daily price		
Do not allow rounding of any values eg 5.20 found but then does 26 – 5	M1M0		
Ignore difference in cost found even if incorrect eg 41.60 and 42 and AtoZ is 60p cheaper	6 marks		

Q	Answer	Mark	Comments
7 (b)	10(am) – 12 (mins) or (0)9:48 or (0)9:50 + 12 or 10:02 or (0)9:45 + 12 or (0)9:57 or (0)9:20 + 12 or (0)9:32	M1	could be indicated on timetable implied by choosing (0)8:56 train (arriving (0)9:45)
	their (0)8:56 – 7 (mins)	M1	their (0)8:56 can be (0)8:30 or (0)9:02
	(0)8:49(am)	A1	

Q	Answer	Mark	Comments
7 (c)	Alternative method 1		
	$16 + 24 + 27 + 17 + 23 + 19$ or 126	M1	adding all 6 values
	their $126 \div 6$ or 21	M1dep	
	21 and No	A1	SC1 110.(....)
	Alternative method 2		
	$16 + 24 + 27 + 17 + 23 + 19$ or 126	M1	adding all 6 values
	22×6 or 132	M1	
	126 and 132 and No	A1	SC1 110.(....)
	Alternative method 3		
	16 17 19 23 (24 27) or 27 24 23 19 (17 16)	M1	orders at least 4 from either end
	$(19 + 23) \div 2$ or 21	M1dep	
	21 and No	A1	SC1 110.(....)
	Alternative method 4		
	$16 - 22$ and $24 - 22$ and $27 - 22$ and $17 - 22$ and $23 - 22$ and $19 - 22$ or -6 and 2 and 5 and -5 and 1 and -3	M1	differences from 22 signs may all be reversed
	$-6 + 2 + 5 - 5 + 1 - 3$ or -6 or $-6 - 5 - 3$ and $2 + 5 + 1$ or -14 and 8	M1dep	oe has to be 0 for the average (mean) to be 22 signs may all be reversed
	-6 and No or $+6$ and No or -14 and 8 and No or 14 and -8 and No	A1	must be totals of all differences SC1 110.(....)

Additional guidance is on the next page

	Additional Guidance	
7(c) cont'd	In Alt 3 choosing 19 and 23 implies M1	
	In Alt 1 omission of brackets can score max 1 mark unless recovered eg $16 + 24 + 27 + 17 + 23 + 19 \div 6 (= 110.16)$	M1
	No may be implied eg They only spent £21	A1
	Answer 21 and they almost spent £22	A0