Functional Skills Level 1
MATHEMATICS
8361/1

Paper 1 Non-Calculator

Mark scheme

November 2022

Version: 1.0 Final

22BG8361/1/MS

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.

Further copies of this mark scheme are available from aqa.org.uk

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 $a \leq$ 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

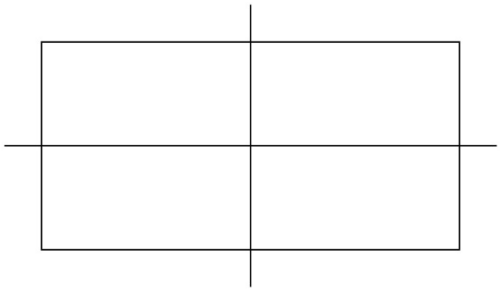
Accept a comma used instead of a decimal point (for example, in measurements or currency), provided that it is clear to the examiner that the student intended it to be a decimal point.

Section A

Q	Answer	Mark	Comments
1	36	B1	

Q	Answer	Mark	Comments
2	3405	B1	ignore punctuation

Q	Answer	Mark	Comments
3	53	B1	

Q	Answer	Mark	Comments
4		B1	mark intention for lines to be mid-way

Q	Answer	Mark	Comments
5	8	B1	

Q	Answer	Mark	Comments
6	0.022, 0.2, 0.202, 0.22	B2	B1 reverse order or one value in incorrect position
	Additional Guidance		
	Reverse order 0.22, 0.202, 0.2, 0.022	B1	
	Examples of one value in incorrect position 0.022, 0.202, 0.22, 0.2 0.022, 0.2, 0.22, 0.202 0.022, 0.202, 0.2, 0.22	 B1 B1 B1	
	Extras zeros may be added eg 0.2 → 0.20		
	Do not allow misreads		

Q	Answer	Mark	Comments
7	10	B1	

Section B

Q	Answer	Mark	Comments
8(a)	8	B1	added to frequency column in the table (interval 10-12) implied by 3 for 1-3 and 4 for 4-6 in the table or on the bar chart
	4	B1ft	ft their 8 ÷ 2 added to frequency column or implied by correct bar height
	3	B1ft	ft 30 – 9 – 6 – their 8 – their 4 added to frequency column or implied by correct bar height
	Correct bars for 1-3 and 4-6 and table fully completed	B1ft	±½ sq ft their 3 and their 4 in table bars must be in the correct position and have the correct width
	Additional Guidance		
	If there is a contradiction between table and chart award B1 if either the value in the table or the height of the bar is correct, but the final B1 cannot be awarded eg bar chart is fully correct but 8, 4 and 27 are given in the table		B1B1B1B0
	The value for 1-3 may be zero but must be written in the table, with no bar drawn eg 10-12 = 10, 4-6 = 5, 1-3 = 0 all completed in the table, and bar height 5 drawn for 4-6 with no bar for 1-3 eg 10-12 = 8, 4-6 = 4, 1-3 = 0 all completed in table and bar height 4 drawn for 4-6 with no bar for 1-3		B0B1B1B1 B1B1B0B1
	If both 1-3 and 4-6 have values of zero do not ft for bar heights eg 10-12 = 8, 4-6 = 0, 1-3 = 0, and no bars drawn eg 10-12 = 15, 4-6 = 0, 1-3 = 0 and no bars drawn		B1B0B0B0 B0B0B1B0

Q	Answer	Mark	Comments
8(b)	**Alternative method 1**		
	80 ÷ 10 or 8 or 80 ÷ 5 or 16	M1	oe working out 10% or 20% of 80
	80 – 2 × their 8 or 80 – their 16 or 64	M1dep	M2 for 80 × 0.8 oe
	their 64 × 3	M1	
	192	A1	
	Alternative method 2		
	80 × 3 or 240	M1	
	their 240 ÷ 10 or 24 or their 240 ÷ 5 or 48	M1	oe working out 10% or 20% of their 240
	their 240 – 2 × their 24 or their 240 – their 48	M1dep	dep on 2nd M1 M3 for 240 × 0.8 oe
	192	A1	
	Additional Guidance		
	In Alt 2 the first two marks may done in reverse order eg 80 ÷ 5 × 3 = 48 or 16 × 3 = 48		M1M1

Q	Answer	Mark	Comments
8(c)	**Alternative method 1**		
	60 × 5 or 300 and 40 × 10 or 400	M1	implied by 700
	(their 300 + their 400) ÷ 5 or 140	M1dep	oe working out 20% of their 700 eg 300 × 0.2 + 400 × 0.2 or 60 + 80
	their 300 + their 400 – their 140	M1dep	oe eg their 140 × 4
	560	A1	SC1 12 from (5 + 10) ÷ 5 × 4
	Alternative method 2		
	60 ÷ 5 or 12 and 40 ÷ 5 or 8	M1	oe
	their 12 × 5 + their 8 × 10 or 140	M1dep	oe
	(their 60 + their 80) × 4 or their 140 × 4	M1dep	oe
	560	A1	SC1 12 from (5 + 10) ÷ 5 × 4
	Alternative method 3		
	60 ÷ 5 or 12 and 40 ÷ 5 or 8	M1	oe
	their 12 × 4 × 5 or 240 and their 8 × 4 × 10 or 320	M1dep	oe
	their 240 + their 320	M1dep	oe
	560	A1	SC1 12 from (5 + 10) ÷ 5 × 4

Mark scheme and additional guidance continue on the next page

8(c) cont	**Alternative method 4**			
	5 ÷ 5 or 1 and 10 ÷ 5 or 2	M1		
	their 1 × 4 × 60 or 240 and their 2 × 4 × 40 or 320	M1dep		
	their 240 + their 320	M1dep		
	560	A1	SC1 12 from (5 + 10) ÷ 5 × 4	
	Additional Guidance			
	SC1 is from ignoring the word 'each' so 15 coins in total and $\frac{4}{5}$ of 15 = 12			
	Up to M1 may be awarded for correct work with no answer, or incorrect answer, even if this is seen amongst multiple attempts			
	Equivalent methods may be seen so use the Alt that favours the student eg 60 × 5 = 300, and 40 × 10 = 400 (Alt 1 first mark) then 300 ÷ 10 = 30, 30 × 2 = 60, 300 – 60 = 240 and 400 ÷ 10 = 40, 40 × 2 = 80, 400 – 80 = 320 equivalent to 2nd mark of Alt 3			M1M1