



Functional Skills Level 1 MATHEMATICS

8361/1

Paper 1 Non-Calculator

Mark scheme

March 2020

Version: 1.0 Final

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 (FS) examinations are marked in such a way as to award positive achievement wherever possible. Thus, for F S 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
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1	0.6	B1	
	Additional Guidance		

Q	Answer	Mark	Comments
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2	25	B1	
	Additional Guidance		

Q	Answer	Mark	Comments
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3	0.08	B1	oe Condone extras zeros before the decimal point or after the 8
	Additional Guidance		

Q	Answer	Mark	Comments
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4	Tallies correct including 5 bar gates	B1	
	Frequencies 5, 6, 3, 2	B1ft	ft their tallies or correct must be integers not relative frequencies
	Additional Guidance		
	Listing the values in the tally column instead of tallying can still gain B1 ft for their correct frequencies		

Q	Answer	Mark	Comments
5	6	B1	
	Additional Guidance		

Q	Answer	Mark	Comments
6	$8 \times 4 \times 5$ or 32×5 or 20×8 or 40×4	M1	
	160	A1	ignore any units
	Additional Guidance		
	160 seen then further work eg $\div 2$		M0

Section B

Q	Answer	Mark	Comments
7(a)	Alternative method 1		
	1700 – 1200 or 500	M1	
	their 500 ÷ 4 or 125	M1	oe
	their 500 ÷ 5 × 3 or 300	M1	oe
	their 500 – their 500 ÷ 4 – their 500 ÷ 5 × 3 or their 500 – 425	M1	condone 375 used for their 500 in their 500 ÷ 5 × 3
	75	A1	
	Alternative method 2		
	1700 – 1200 or 500	M1	
	0.25 + 0.6 or 0.85 or $\frac{5}{20} + \frac{12}{20}$ or $\frac{17}{20}$	M1	oe
	their 0.85 × their 500 or 425 or 1 – their 0.85 or 0.15	M1	
	their 500 – their 425 or their 0.15 × their 500	M1dep	oe dep on previous M2
	75	A1	
	Additional Guidance		
	$\frac{1}{4}$ of 500 is not sufficient to imply multiplying		

	<p>In Alt 1 their 500 must be the same value for the 2nd, 3rd and 4th method marks with the exception of condoning for the 4th mark working out 3/5 of the rest after their ¼ has been subtracted</p> <p>Eg omitting to subtract the 1200 so using 1700 consistently</p> <p>Example 1</p> $1700 \div 4 = 425$ $1700 \div 5 \times 3 = 1020$ $1700 - 425 - 1020 = 255$ <p>Example 2</p> $1700 \div 4 = 425$ $1700 - 425 = 1275$ $1275 \div 5 \times 3 = 765$	<p>M0M1 M1 M1A0</p> <p>M0M1 M0 M1A0</p>
	<p>Misinterpreting ‘the rest of’ leads to the value of 375 being used as their 500 for the 3rd and 4th marks. It can be condoned for the 4th mark only</p> <p>Example</p> $1700 - 1200 = 500$ $500 \div 4 = 125$ $500 - 125 = 375$ $375 \div 5 \times 3 = 225$ $375 - 225 = 150$	<p>M1 M1 M0 M1 A0</p>

Q	Answer	Mark	Comments
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Alternative method 1				
7(b)	10×73.50 or 735	M1		
	their 735 – 689.95	M1	their 735 must come from $10 \times 73.5(0)$ or $12 \times 73.5(0)$	
	45.05	A1		
	Alternative method 2			
	$689.95 \div 10$ or 68.995	M1	condone 69	
	$(73.5(0) - \text{their } 68.995) \times 10$ or 4.505×10	M1	their 68.995 must com from $689.95 \div 10$ or $689.95 \div 12$	
	45.05	A1		
	Additional Guidance			

Q	Answer	Mark	Comments
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Alternative method 1				
7(c)	$420 \div 140$ or 3	M1	£3 per degree implied by 210 and 270 seen	
	$90 \times \text{their } 3$ or 270 or $70 \times \text{their } 3$ or $420 \div 2$ or 210	M1	oe	
	their 270 – their 210	M1dep	dep on M2	
	60	A1		
	Alternative method 2			
	$420 \div 140$ or 3	M1	£3 per degree	
	$90 - 70$ or 20	M1	ignore units	
	their 20 \times their 3	M1dep	dep on M2	
	60	A1		

Additional Guidance	
Check diagram for values	
Answer 20	M1
Beware values coming from incorrect methods eg 270 from $140 + 60 + 70$ and 60 from $420 - 360$	