

Functional Skills Level 2
MATHEMATICS

8362/1

Paper 1 Non-Calculator

Mark scheme

March 2023

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 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	14	B1	

Q	Answer	Mark	Comments
2	6 × 4 worked out separately or 24	M1	implied by -76
	76	A1	
	Additional Guidance		
	eg $10^2 = 20$, $20 - 24 = -4$ $10 \times 2 = 20$, $20 - 24 = -4$ $(7 + 3)^2 = 100$, $6 \times 4 = 24$, $24 - 100 = -76$ $7 + 9 - 24 = -8$		M1A0 M1A0 M1A0 M1A0
	94 × 4 or 14 × 4		MOA0

Q	Answer	Mark	Comments
3	$360 - (90 + 167)$	M1	oe
	103	A1	

Q	Answer	Mark	Comments
4	(0).418	B2	B1 (0).4... or digits 418 seen

Q	Answer	Mark	Comments
5	17	B1	condone decimal or fraction

Section B

Q	Answer	Mark	Comments	
6 (a)	Alternative method 1			
	$9 \div 30 \times 40 \times 25$ or $9 \div 3 \times 4 \times 25$ or 12×25 or $9 \times 25 + 9 \div 3 \times 25$ or $225 + 75$ or 300	M3	oe complete method to find grams needed M2 $9 \div 30 \times 40$ or 12 oe or $9 \div 3 \times 4$ or 12 oe or 40 : 12 or $9 \div 30 \times 25$ or 7.5 oe or $9 \div 3 \times 25$ or 75 oe or $9 \times 25 - 175$ or 50 oe M1 $40 \div 30$ or $\frac{4}{3}$ or 1.3... oe or $30 \div 40$ or $\frac{3}{4}$ or 0.75 oe or 9×25 or 225 oe or $9 \div 30$ or $\frac{3}{10}$ or 0.3 oe or $9 \div 3$ or 3 (oz) = 10 (pieces) or 10 : 3 oe or $30 \div 9$ or 3.3... oe	
	their 300 – 175		M1dep	dep on M3
	125		A1	

Mark scheme and additional guidance continue on next page

6 (a) cont'd	Alternative method 2		
	$9 \times 25 - 175$ or $225 - 175$ or $(9 - 175 \div 25) \times 25$ or 2×25 or 50	M2	oe M1 9×25 or 225 oe or $175 \div 25$ or 7 oe
	$9 \div 3 \times 25$ or 75	M1	oe
	their 50 + their 75	M1dep	oe dep on M3
	125	A1	
	Alternative method 3		
	$9 \div 30 \times 40$ or 12 or $9 \div 3 \times 4$ or 12 or $40 : 12$	M2	oe complete method to find ounces needed M1 $40 \div 30$ or $\frac{4}{3}$ or 1.3... oe or $9 \div 30$ or $\frac{3}{10}$ or 0.3 oe or $9 \div 3$ or 3 (oz) = 10 (pieces) or 3 : 10 oe or $30 \div 9$ or 3.3... oe
	$175 \div 25$ or 7	M1	oe
	(their 12 – their 7) $\times 25$ or 5×25 or their $12 \times 25 -$ their 7×25 or $300 - 175$	M1dep	oe dep on M3 5 (more ounces needed) implies previous M3
	125	A1	

Mark scheme and additional guidance continue on next page

	Additional Guidance	
6 (a) cont'd	Up to M3 may be awarded for correct work, with no answer, or incorrect answer, even if this is seen amongst multiple attempts	
	Use the alt that favours the student	

Q	Answer	Mark	Comments		
6 (b)	$\frac{13}{20}$	B3	B2 $\frac{26}{40}$ or another fraction equivalent to $\frac{13}{20}$ or 0.65 or 65% or $\frac{7}{20}$ B1 40 – 14 or 26 seen or $\frac{14}{40}$ or another fraction equivalent to $\frac{7}{20}$ or 0.35 or 35% or correct full simplification of any fraction		
			Additional Guidance		
			Further incorrect simplification after $\frac{13}{20}$ seen	B2	
			Further incorrect simplification after $\frac{26}{40}$ seen	B2	
			Allow decimals within fractions for B2 eg $\frac{6.5}{10}$	B2	
			Further incorrect simplification after $\frac{7}{20}$ seen	B1	

Q	Answer	Mark	Comments	
6 (c)	$6 \times 8 \div 2$ or 24	M1	oe implied by 216	
	their 24×9 or 216	M1	their 24 cannot be 6 or 8	
	their $216 \div 10$ or 21.6	M1	implied by correct number of pieces for their volume	
	21	A1	SC2 43(.2)	
	Additional Guidance			
	Up to M2 may be awarded for correct work, with no answer, or incorrect answer, even if this is seen amongst multiple attempts			
	Do not ignore further working for area of triangle after 24 seen eg $6 \div 2 \times 8 = 24$, $24 \times 2 = 48$			M0
	21 with no incorrect working			M1M1M1A1
	$6 \times 8 = 48$, $48 \times 9 = 432$, $432 \div 10 = 43.2 = 43$			M0M1M1A0
	$6 \times 8 \times 9 \div 2$			M1M1
$6 \times 8 \times 9$			M0M1	