Functional Skills Level 2
MATHEMATICS
8362/1

Paper 1 Non-Calculator

Mark scheme

November 2021

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 ≤ 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	C	B1	may be indicated on the graph

Q	Answer	Mark	Comments
2	591 972	B1	
	Additional Guidance		
	Ignore punctuation		

Q	Answer	Mark	Comments
3	$\dfrac{24}{44}$	M1	oe fraction
	$\dfrac{6}{11}$	A1	SC1 $\left(\dfrac{20}{44} \text{ and}\right) \dfrac{5}{11}$

Q	Answer	Mark	Comments
4	$150 \div 10 \times 2 - 150 \div 100$ or $15 \times 2 - 1.5$ or $150 \div 10 + 9 \times 150 \div 100$ or $15 + 13.5$ or 150×0.19 or $150 \times \dfrac{19}{100}$	M1	oe correct full method eg $15 + 15 - 1.5$
	28.5	A1	
	Additional Guidance		
	$150 \div 10 + 150 \div 10 - 150 \div 100$ and $1.5 + 1.5 - 0.15$	M1A0	
	Condone subtraction of 28.5 from 150 for M1		

Q	Answer	Mark	Comments
5	$(x =)$ 115	B1	
	$(y =)$ 65 or $(y =)$ 180 – their x evaluated correctly	B1ft	ft their x
	Additional Guidance		
	Answer(s) could be on the diagram		
	$x = 65$ and $y = 115$		B0B1ft

Section B

Q	Answer	Mark	Comments
	Alternative method 1		
	Horizontal line from 3500 g to the graph	M1	may be implied by a mark on the line or on the horizontal axis
	[123, 125]	A1	
	their [123, 125] ÷ 16 or correct result for their [123, 125] ÷ 16 to at least 1 decimal place or as an integer with correct remainder	M1	oe
	Correct result for their [123, 125] ÷ 16 to at least 1 decimal place or as an integer with correct remainder and No	A1ft	ft their [123, 125] condone no decimal part or remainder if division seen
	Alternative method 2		
6(a)	Horizontal line from 3500 g to the graph	M1	may be implied by a mark on the line or on the horizontal axis
	[123, 125]	A1	
	8 × 16 or 128	M1	
	[123, 125] and 128 and No	A1ft	ft their [123, 125]
	Alternative method 3		
	Horizontal line from 3500 g to the graph	M1	may be implied by a mark on the line or on the horizontal axis
	8 × 16 or 128	M1	
	Marks on horizontal axis at 128 and [123, 125]	M1	
	Marks on horizontal axis at 128 and [123, 125] and No	A1	

Mark scheme and Additional guidance continues on the next page

Q	Answer	Mark	Comments
6(a) cont	**Alternative method 4**		
	8×16 or 128 or Vertical line from 16 ounces to the graph and reading across to the y-axis	M1	may be implied by a mark on the line or on the vertical axis
	Vertical line from 128 ounces to the graph or their reading at the y-axis from 16 ounces $\times$ 8	M1	may be implied by a mark on the line or on the vertical axis
	[3600, 3700] or [3.6, 3.7]	A1	
	[3600, 3700] and 3500 and No or [3.6, 3.7] and No	A1	
	Additional Guidance		
	Alt 1 an integer with remainder could be written as pounds and ounces		

Q	Answer	Mark	Comments
6(b)	(median =) 3.6 or (mode =) 4	M1	
	2.3 + 2.5 + 2.7 + 3.6 + 4 + 4 + 4 or 23.1	M1	
	(2.3 + 2.5 + 2.7 + 3.6 + 4 + 4 + 4) ÷ 7 or 3.3 or 3.5 × 7 or 24.5	M1	
	(mean =) 3.3 and (median =) 3.6 or 23.1 and 24.5 and (median =) 3.6 or (mean =) 3.3 and (mode =) 4 or 23.1 and 24.5 and (mode =) 4	A1	SC2 from using all 8 values median = 3.55 and mean = 3.325 or mode = 4 and mean = 3.325
	Additional Guidance		
	Correct median and/or correct mode only		M1 only

Q	Answer	Mark	Comments
	Alternative method 1		
	6.75 ÷ 3 or 2.25	M1	oe
	6.75 − their 2.25 or their 2.25 × 2 or 4.5(0)	M1dep	oe $6.75 \times \dfrac{2}{3}$ scores M2
	their 4.5(0) ÷ 25 or 0.18 or [(0.21 × 25) − their 4.5(0)] (÷ 25) or [5.25 − their 4.5(0)] (÷ 25) or 0.75 (÷ 25) or 0.03	M1dep	oe
	3	A1	
	Alternative method 2		
6(c)	6.75 ÷ 25 or 0.27	M1	oe
	their 0.27 ÷ 3 or 0.09	M1dep	oe
	their 0.27 − their 0.09 or their 0.09 × 2 or 0.18	M1dep	oe $0.27 \times \dfrac{2}{3}$ scores M3
	3	A1	
	Alternative method 3		
	6.75 ÷ 3 or 2.25	M1	oe
	their 2.25 ÷ 25 or 0.09	M1dep	oe
	6.75 ÷ 25 − their 0.09 or 0.18	M1dep	oe
	3	A1	
	Additional Guidance		
	Allow all working in pence		