Functional Skills Level 2
MATHEMATICS
8362/1

Paper 1 Non-Calculator

Mark scheme

March 2022

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.

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	1	B1	
	Additional Guidance		
	If no options circled, accept a 1 or number of 1s circled on the given list		

Q	Answer	Mark	Comments
2	Nine million, seven thousand (and) sixty five	B1	
	Additional Guidance		
	Ignore punctuation and spelling		

Q	Answer	Mark	Comments
3	5.263 or $5\frac{263}{1000}$	B1	

Q	Answer	Mark	Comments
4	5^2 completed first or 25 and 75 ÷ their 25 or 3	M1	
	53	A1	
	Additional Guidance		
	eg $5^2 = 10$, $75 \div 10 = 7.5$, $50 + 7.5 = 57.5$ or $5 \times 2 = 10$, $75 \div 10 = 7.5$, $50 + 7.5 = 57.5$	M1A0	
	125 ÷ any number eg $125 \div 5^2$ and 5	M0A0	
	125 + any number eg $125 + 5^2$ and 150	M0A0	

Q	Answer	Mark	Comments
5	$\dfrac{31}{7}$	B1	oe improper fraction eg $\dfrac{62}{14}$
	Additional Guidance		
	Ignore attempt to simplify fraction after correct answer seen		
	Do not ignore an attempt to revert to a mixed number		

Q	Answer	Mark	Comments
6	$360 - (90 + 116 + 89)$ or $360 - 295$	M1	oe
	65	A1	

Section B

Q	Answer	Mark	Comments
7(a)	$\dfrac{5}{10}$ ($\times$ 60)	M1	oe eg $\dfrac{1}{2} \times 60$ or half an hour
	30 (mins)	A1	implied by total time 100 minutes or 1h 40m or correct final answer
	7.30 + 25 (mins) + 45 (mins) or 8.40	M1	oe
	9.10 (am)	A1ft	ft 8.40 + their 30 (mins)

Additional Guidance	
$\dfrac{10}{5} = 2$, 7.30 + 25 + 45 + 2, 79.3(0)	M0A0M1A0
$\dfrac{10}{5} = 2$, 7.30 + 25 (mins) + 45 (mins) + 2 (mins), 8.42	M0A0M1A1ft
$\dfrac{10}{5} = 2$, 7.30 + 25 (mins) + 45 (mins) + 2 (hours), 10.40	M0A0M1A1ft
Accept 0.3 for 30 minutes if used in consistent notation eg 7.30 + 0.25 + 0.45 + 0.3	M1A1M1

Q	Answer	Mark	Comments
7(b)	$\dfrac{5}{12}$	B3	B2 $\dfrac{25}{60}$ or another fraction equivalent to $\dfrac{5}{12}$ or $\dfrac{7}{12}$ B1 35 seen or 25 seen or correct full simplification of any fraction

Additional Guidance	
Further incorrect simplification after $\dfrac{5}{12}$ seen	B2
Further incorrect simplification after $\dfrac{25}{60}$ seen eg $\dfrac{25}{60} = \dfrac{5}{30}$	B2
Further incorrect simplification after $\dfrac{7}{12}$ seen eg $\dfrac{35}{60} = \dfrac{7}{12}$, $\left(\dfrac{7}{12} =\right)\dfrac{3}{6}$	B1

Q	Answer	Mark	Comments
7(c)	Plots (170, 110) and (185, 99) correctly	B1	$\pm\dfrac{1}{2}$ small square ignore any additional points plotted
	Appropriate line of best fit passing through (170, [107, 114]) and (190, [95, 100]) with at least three points above and at least three points below the line	B1ft	for the 10 or 12 points intended single straight line ft their two additional points
	Draws a vertical line from 180 to their line of best fit	M1	implied by mark at the correct place on their line of best fit or on the vertical axis or the correct reading from their line of best fit their line of best fit must be decreasing throughout allow a curve or dotted line but not zig-zags
	Correct reading for their line of best fit	A1ft	$\pm\dfrac{1}{2}$ small square ft their line of best fit which must be decreasing throughout allow a curve or dotted line but not zig-zags
	Seconds	B1	accept minutes and seconds or minutes if correct conversion from their time in seconds ignore any incorrect conversion if seconds seen eg 104 sec = 1 min 4 sec

Additional Guidance	
If no line is drawn then only the first and last B1 marks are available	
No points plotted, but a line of best fit drawn can score all but the first mark	
For the accuracy mark $\pm\dfrac{1}{2}$ a small square is taken to be from the correct reading on the vertical axis for their line of best fit using 180 on the horizontal axis	
Accept units in working if not seen on answer line	