Pearson

Mark Scheme (Results)

November 2023

Pearson Edexcel GCSE
In Mathematics (1MA1)
Foundation (Non-Calculator) Paper 1F

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

November 2023
Question Paper Log Number P69525A
Publications Code 1MA1_1F_2311_MS

General marking guidance

These notes offer general guidance, but the specific notes for examiners appertaining to individual questions take precedence.

1 All candidates must receive the same treatment. Examiners must mark the last candidate in exactly the same way as they mark the first. Where some judgement is required, mark schemes will provide the principles by which marks will be awarded; exemplification/indicative content will not be exhaustive. When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the response should be sent to review.

2 All the marks on the mark scheme are designed to be awarded; mark schemes should be applied positively. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme. If there is a wrong answer (or no answer) indicated on the answer line always check the working in the body of the script (and on any diagrams), and award any marks appropriate from the mark scheme.

Questions where working is not required: In general, the correct answer should be given full marks.
Questions that specifically require working: In general, candidates who do not show working on this type of question will get no marks – full details will be given in the mark scheme for each individual question.

3 Crossed out work

This should be marked **unless** the candidate has replaced it with an alternative response.

4 Choice of method

If there is a choice of methods shown, mark the method that leads to the answer given on the answer line.
If no answer appears on the answer line, mark both methods **then award the lower number of marks.**

5 Incorrect method

If it is clear from the working that the "correct" answer has been obtained from incorrect working, award 0 marks. Send the response to review for your Team Leader to check.

6 Follow through marks

Follow through marks which involve a single stage calculation can be awarded without working as you can check the answer, but if ambiguous do not award.
Follow through marks which involve more than one stage of calculation can only be awarded on sight of the relevant working, even if it appears obvious that there is only one way you could get the answer given.

7 Ignoring subsequent work

It is appropriate to ignore subsequent work when the additional work does not change the answer in a way that is inappropriate for the question or its context. (eg an incorrectly cancelled fraction when the unsimplified fraction would gain full marks).
It is not appropriate to ignore subsequent work when the additional work essentially makes the answer incorrect (eg. incorrect algebraic simplification).

8 Probability

Probability answers must be given as a fraction, percentage or decimal. If a candidate gives a decimal equivalent to a probability, this should be written to at least 2 decimal places (unless tenths).
Incorrect notation should lose the accuracy marks, but be awarded any implied method marks.
If a probability fraction is given then cancelled incorrectly, ignore the incorrectly cancelled answer.

9 Linear equations

Unless indicated otherwise in the mark scheme, full marks can be gained if the solution alone is given on the answer line, or otherwise unambiguously identified in working (without contradiction elsewhere). Where the correct solution only is shown substituted, but not identified as the solution, the accuracy mark is lost but any method marks can be awarded (embedded answers).

10 Range of answers

Unless otherwise stated, when an answer is given as a range (eg 3.5 – 4.2) then this is inclusive of the end points (eg 3.5, 4.2) and all numbers within the range

11 Number in brackets after a calculation

Where there is a number in brackets after a calculation eg 2 × 6 (=12) then the mark can be awarded **either** for the correct method, implied by the calculation **or** for the correct answer to the calculation.

12 Use of inverted commas

Some numbers in the mark scheme will appear inside inverted commas eg "12" × 50 ; the number in inverted commas cannot be any number – it must come from a correct method or process but the candidate may make an arithmetic error in their working.

13 Word in square brackets

Where a word is used in square brackets eg [area] × 1.5 : the value used for [area] does **not** have to come from a correct method or process but is the value that the candidate believes is the area. If there are any constraints on the value that can be used, details will be given in the mark scheme.

14 Misread

If a candidate misreads a number from the question. eg uses 252 instead of 255; method or process marks may be awarded provided the question has not been simplified. Examiners should send any instance of a suspected misread to review.

Guidance on the use of abbreviations within this mark scheme	
M	method mark awarded for a correct method or partial method
P	process mark awarded for a correct process as part of a problem solving question
A	accuracy mark (awarded after a correct method or process; if no method or process is seen then full marks for the question are implied but see individual mark schemes for more details)
C	communication mark awarded for a fully correct statement(s) with no contradiction or ambiguity
B	unconditional accuracy mark (no method needed)
oe	or equivalent
cao	correct answer only
ft	follow through (when appropriate as per mark scheme)
sc	special case
dep	dependent (on a previous mark)
indep	independent
awrt	answer which rounds to
isw	ignore subsequent working

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
1	6	B1	cao	
2	31	B1	cao	
3	12*a*	B1		
4	40	B1	accept answer in the range 38 to 42	
5	60	B1	cao	
6	2300	P1 P1 A1	for converting to millilitres or litres eg 3 × 1000 (= 3000) **or** 700 ÷ 1000 (= 0.7) for finding the difference eg [3000] – 700 **or** 3 – [0.7] (= 2.3) accept 2.3 litres	Process marks may be awarded in either order [3000] comes from 3 × 1000 or can be 30 or 300 or 30000 [0.7] comes from 700 ÷ 1000 or can be 7 or 70
7 (a)	15	B1	cao	
(b)	4	B1	cao	

Paper: 1MA1/1F					
Question		**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
8	(a)	11, 7, 6	B2 (B1	for all frequencies correct for two tallies or two frequencies correct)	Any discrepancy mark frequencies
	(b)	Castle	B1	Castle or ft their tallies or frequencies	Any discrepancy ft frequencies
	(c)	Bar chart	B1 M1 A1	for correct place labels or a linear scale for at least two correct bars ft their table in (a) for a fully correct bar chart with linear scale of numbers on the vertical axis and a set of place labels on the horizontal axis (ft from their frequencies or tallies in (a))	Accept key in place of labels Accept unambiguous abbreviations for labels eg C, F, M Condone bars of varying widths Condone no gaps or inconsistent gaps Bars must be unambiguously correct for their scale
9	(i)	$\frac{9}{22}$	B1	oe	If incorrect notation used in both (i) and (ii), penalise once only in (i)
	(ii)	$\frac{14}{22}$	B1	oe eg $\frac{7}{11}$	
	(iii)	0	B1		

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
10	Yes **and** 750	P1 P1 C1	for beginning to work with proportion eg 60 ÷ 20 (= 3) **or** 900 – 250 (= 650) **or** 250 ÷ 20 (= 12.5 oe) **or** 900 ÷ 60 (= 15) for a complete process to see if there is enough peanut butter eg "3" × 250 (= 750) **or** 900 ÷ "3" (= 300) **or** "650" – 250 – 250 (= 150) oe **or** "12.5" × 60 (= 750) **or** for a complete process to work out how many cookies he can make eg 900 ÷ "12.5" (= 72) **or** for process to work out how much peanut butter is needed for one cookie and how much peanut butter he can use per cookie eg 250 ÷ 20 (= 12.5 oe) **and** 900 ÷ 60 (= 15) Yes **and** accurate figure to compare eg 750 (g needed) **or** 150 (g over) **or** 300 (g per batch available) **or** 72 (cookies can be made) **or** 12.5 (g peanut butter per cookie needed) **and** 15 (g peanut butter per cookie available)	Sugar = 600 (g) or Small eggs = 6 (eggs) implies P1 Sight of 750 gains P2
11	Diagram	M1 A1	for a correct base length (6 cm) drawn or correct height (9 cm) drawn **or** a fully correct enlargement of a scale factor not equal to 3 fully correct enlargement	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
12 (a)(i)	26	M1	for substitution eg $2 \times 3 + 4 \times 5$ or $6 + 20$	
		A1	cao	
(ii)	13	M1	for substitution eg $38 = 2g + 4 \times 3$ **or** a complete numerical method eg $(38 - 4 \times 3) \div 2$ **or** for a correct first step to rearrange eg $P - 4h = 2g$ or $\frac{P}{2} = g + \frac{4h}{2}$ oe	
		A1	cao	
(b)	–11	M1	for $3 \times -3 = -9$ oe **or** a full substitution eg $(3 \times -3) - 2$	Condone absence of brackets
		A1	cao	
13	23	P1	for finding the number of scrunchies possible eg $100 \div 5$ (= 20) **or** the cost of 1 g of wool eg $300 \div 100$ (= 3)	
		P1	for working out the cost of wool per scrunchie eg $3 \div$ "20" (= 0.15) **or** $300 \div$ "20" (= 15) **or** "3" $\times 5$ (= 15) **or** the cost of all hair bands eg "20" $\times 8$ (= 160) **or** "20" $\times$ 0.08 (= 1.6(0))	Award of this mark implies the previous mark 460 implies P2
		P1	for complete process eg ("0.15" + 0.08) $\times 100$ **or** "15" + 8 **or** (300 + "160") $\div$ "20" **or** (3 + "1.6(0)") $\div$ "20" $\times 100$	
		A1	accept £0.23	