



Cambridge IGCSE™

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/43

Paper 4 (Extended)

May/June 2026

MARK SCHEME

Maximum Mark: 75

Published

This mark scheme contains the instructions and marking guidance that our examiners used to mark candidate responses for this component.

Before they start marking, examiners complete a standardisation process. They review a range of candidate responses and discuss the mark scheme in detail to agree which answers can and cannot be accepted. Examiners award marks where it is clear that candidate responses have met the requirements of the mark scheme. These requirements may vary between different components or different versions of the same component, depending on the exact requirements of the question and the candidate responses seen during the standardisation process.

Sometimes, our mark schemes may allow marks to be awarded to responses which contain elements that are factually incorrect or for content not covered by the syllabus. We do this in response to the demands of a specific question to support candidates and make sure that our assessments are fair. However, these allowances should not be used as a guide for teaching and learning.

We cannot discuss the mark scheme with schools, and we recommend that schools read the mark scheme together with the assessment material and the Principal Examiner Report for Teachers.

This document consists of **14** printed pages.

General marking principles

All examiners must apply these marking principles when marking candidate responses.

1	Examiners must award marks for each response in line with: - the specific content defined in the mark scheme - the specific skills defined in the mark scheme or in the level descriptions - the standard of response required as exemplified by the standardisation scripts.
2	Examiners must award whole marks (not half marks, or other fractions).
3	Examiners must award marks positively . This means that: - marks are not deducted for errors or omissions - marks are awarded for correct/valid answers as defined in the mark scheme and also for other valid answers which go beyond the scope of the syllabus and mark scheme referring to your team leader as appropriate - the quality of spelling, punctuation and grammar are judged only when the mark scheme indicates that these features are specifically assessed in the question. However, the meaning of all responses must be unambiguous.
4	Examiners must consistently apply the requirements of the mark scheme and any rules for what to do when candidates have not followed instructions correctly.
5	Examiners must use the full range of marks defined in the mark scheme, unless limited by the quality of the candidate responses seen.
6	Examiners must award marks according to the mark scheme and must not award marks with grade thresholds or grade descriptions in mind.

Mathematics-Specific Marking Principles

- 1 Unless a particular method has been specified in the question, full marks may be awarded for any correct method. However, if a calculation is required then no marks will be awarded for a scale drawing.
- 2 Unless specified in the question, non-integer answers may be given as fractions, decimals or in standard form. Ignore superfluous zeros, provided that the degree of accuracy is not affected.
- 3 Allow alternative conventions for notation if used consistently throughout the paper, e.g. commas being used as decimal points.
- 4 Unless otherwise indicated, marks once gained cannot subsequently be lost, e.g. wrong working following a correct form of answer is ignored (isw).
- 5 Where a candidate has misread a number or sign in the question and used that value consistently throughout, provided that number does not alter the difficulty or the method required, award all marks earned and deduct just 1 A or B mark for the misread.
- 6 Recovery within working is allowed, e.g. a notation error in the working where the following line of working makes the candidate's intent clear.

Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
	More information required
	Accuracy mark awarded zero
	Accuracy mark awarded one
	Accuracy mark awarded two
	Accuracy mark awarded three
	Independent mark awarded zero
	Independent mark awarded one
	Independent mark awarded two
	Independent mark awarded three
	Benefit of the doubt

Annotation	Meaning
C	Communication mark
X	Incorrect
FT	Follow through
Highlighter	Highlight a key point in the working
ISW	Ignore subsequent work
M0	Method mark awarded zero
M1	Method mark awarded one
M2	Method mark awarded two
M3	Method mark awarded three
MR	Misread
O	Omission
Off-page comment	Allows comments to be entered at the bottom of the RM marking window and then displayed when the associated question item is navigated to.
On-page comment	Allows comments to be entered in speech bubbles on the candidate response.
Pre	Premature rounding/approximation
SC	Special case
SEEN	Indicates that work/page has been seen
TE	Transcription error

Annotation	Meaning
	Correct
	Correct answer from incorrect working

MARK SCHEME NOTES

The following notes are intended to aid interpretation of mark schemes in general, but individual mark schemes may include marks awarded for specific reasons outside the scope of these notes.

Types of mark

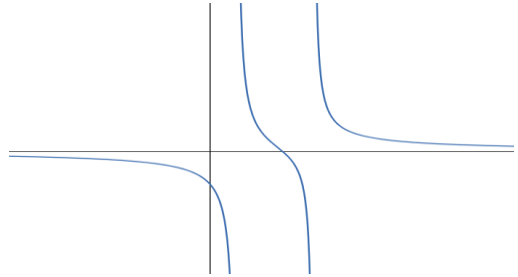
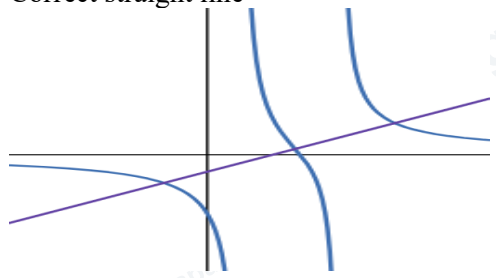
- M** Method marks, awarded for a valid method applied to the problem.
- A** Accuracy mark, awarded for a correct answer or intermediate step correctly obtained. For accuracy marks to be given, the associated Method mark must be earned or implied.
- B** Mark for a correct result or statement independent of Method marks.

When a part of a question has two or more ‘method’ steps, the M marks are in principle independent unless the scheme specifically says otherwise; and similarly where there are several B marks allocated. The notation ‘dep’ is used to indicate that a particular M or B mark is dependent on an earlier mark in the scheme.

Abbreviations

awrt	answers which round to
cao	correct answer only
dep	dependent
FT	follow through after error
isw	ignore subsequent working
nfwf	not from wrong working
oe	or equivalent
rot	rounded or truncated
SC	Special Case
soi	seen or implied

Question	Answer	Marks	Partial Marks	Guidance
1(a)	710	1		Allow 710.0, 710.00, etc.
1(b)	705.180 cao	1		705.18 scores 0
2	-1	2	M1 for $5x = 8 - 13$ oe or $x + \frac{13}{5} = \frac{8}{5}$	
3	25.5 or 25.48 to 25.49	1		
4(a)	16	1		
4(b)	$[d =] [\pm] \sqrt{\frac{c^2 - X}{9}}$ oe final answer	3	M1 for correctly isolating term in d M1 for correct division M1 for correct square root Max 2 marks for incorrect final answer	$\frac{\sqrt{X - c^2}}{9}$ scores M0 M1 M0
5(a)	$\frac{18}{50}$ oe	1		Allow equivalent forms and isw incorrect cancelling
5(b)(i)	16 to 20	1		
5(b)(ii)	21 to 25	1		
6	$486x^4$	3	B2 for $486x^k$, $k \neq 0$ or $6kx^4$ or B1 for $[l =] \sqrt[3]{729x^6}$ oe changed x to l	$(9x^2)$
7	$\frac{480x}{x+y}$, $\frac{480y}{x+y}$	2	B1 for $\frac{480}{x+y}$	Allow e.g. $480 \frac{x}{x+y}$
8(a)	$(-4, 2)$	1		
8(b)	$(5, -1)$	1		

Question	Answer	Marks	Partial Marks	Guidance
8(c)	Reflection [Line] $y = x$	2	B1 for each	More than one transformation scores 0. Extra properties treat as choice.
9(a)(i)	Correct sketch 	3	B2 for correct sketch with excessive gaps, overlaps or feathering OR B1 for graph in 3 sections B1 for middle section approx. correct B1 for 2 outside sections approx. correct	
9(a)(ii)	$x = 0.5$ $x = 2$	2	B1 for each	isw any $y = k$
9(a)(iii)	0	1	Allow e.g. $y = 0$ but not $x = 0$	
9(b)	Correct straight line 	1	Positive gradient and negative y-intercept	Condone good freehand
9(c)	-0.664 or -0.664... 1.33 or 1.327... 2.84 or 2.836 to 2.837	3	B1 for each SC2 if y-coords included for all 3 points but must be usual accuracy or SC1 for y-coords included for all 3 points with three correct x values with one to 2 sf	

Question	Answer	Marks	Partial Marks	Guidance
10(a)	46	1		
10(b)(i)	$[y =] 0.708x + 23.2$	2	B1 for $y = 0.708x + k$ or $y = kx + 23.2$ or $y = 0.71x + 23$	0.7083... 23.21 to 23.22
10(b)(ii)	41 or 40.9...	1	FT their (b)(i)	
10(c)	$\frac{2}{3}$ oe	2	M1 for $\frac{5}{6} \times \frac{4}{5}$	
11	$2x^3 - 3x^2 - 11x + 6$ final answer	3	B2 for correct expansion of three brackets unsimplified or for simplified four-term expression of correct form with 3 terms correct. or B1 for correct expansion of two brackets with at least 3 terms out of 4 correct.	e.g. $2x^3 - 7x^2 + 4x^2 + 3x - 14x + 6$ $(x^2 - 3x + 2x - 6)[(2x - 1)]$ or $(2x^2 + 4x - x - 2)[(x - 3)]$ or $(2x^2 - x - 6x + 3)[(x + 2)]$
12(a)	x oe	1		
12(b)	x oe	1	FT their (a)	
12(c)	$90 + x$ oe	1		
12(d)	$90 - 2x$ oe	1		
13	$(4x - 3y)(4x + 3y)$ final answer	2	B1 for $(4x - ay)(4x + by)$ or $(cx - 3y)(dx + 3y)$ or for correct answer seen and then spoiled	Signs must be different and a, b, c and d not 0.

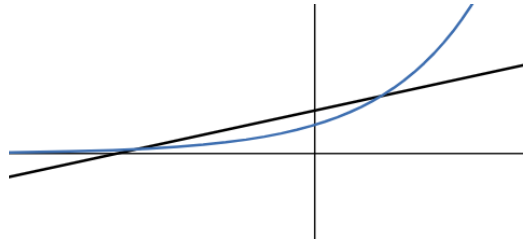
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Question	Answer	Marks	Partial Marks	Guidance
14(a)	2450 to 2451	3	B2 for $\frac{1}{3}\pi \times 9^2 \times 30$ or $\frac{1}{3}\pi \times 3^2 \times 10$ or B1 for radius = 3 OR M2 for $\frac{1}{(3^3 - 1)} \left(\frac{1}{3}\pi \times 9^2 \times 30 \right)$ oe or M1 for $1:(27 - 1)$	Accept 780π as final answer 2544 to 2545, 94.24 to 94.26 Radius 3 may be seen on diagram

Question	Answer	Marks	Partial Marks	Guidance
14(b)	1070 or 1069 to 1070. [.0...]	5	M4 for $\pi(9^2 + 3^2) +$ $\pi \times 9 \times \sqrt{9^2 + 30^2} - \pi \times 3 \times \sqrt{3^2 + 10^2}$ OR B1 for $\sqrt{9^2 + 30^2}$ or $\sqrt{3^2 + 10^2}$ B1 for $\pi(9^2 + 3^2)$ B2 dep for $\pi \times 9 \times \text{their} \sqrt{9^2 + 30^2} - \pi \times 3 \times \frac{1}{3} \text{their} \sqrt{9^2 + 30^2}$ oe or B1 dep for $\pi \times 9 \times \text{their} \sqrt{9^2 + 30^2}$ or $\pi \times 3 \times \frac{1}{3} \text{their} \sqrt{9^2 + 30^2}$ oe OR B1 for $\pi(9^2 + 3^2)$ B2 for $\frac{1}{(3^2 - 1)} (\pi \times 9 \times \sqrt{9^2 + 30^2})$ or B1 for $1:(9 - 1)$	31.3 or 31.32... 283 or 282.7 to 282.8 886 or 885.5 to 885.7 98.4 or 98.39 to 98.41 dep on use of Pythagoras or trigonometry 787.1...
15(a)	124	1		
15(b)	5.14 or 5.142 to 5.143	3	M2 for $6.9^2 - 4.6^2$ or M1 for $6.9^2 = BC^2 - 4.6^2$	May use trigonometry

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Question	Answer	Marks	Partial Marks	Guidance
15(c)	161 or 160.7...	4	M2 for $\sin CDA = \frac{4.6 \times \sin 34}{4.3}$ oe or M1 for $\frac{\sin CDA}{4.6} = \frac{\sin 34}{4.3}$ oe M1 dep for $270 - (180 - (34 + \text{their } CDA))$ oe	May be seen in (a) or on diagram 36.7415 Angle $ACD = 109.258$ for M2 Dep on <i>their</i> CDA from trig
16(a)	80 000	3	B2 for $\left(1 + \frac{5}{100}\right)\left(1 + \frac{8}{100}\right)x = 90\,720$ oe or B1 for $\left(1 + \frac{5}{100}\right)x = 90\,720$ or $\left(1 + \frac{8}{100}\right)x = 90\,720$	86 400, 84 000
16(b)	2043 nfw	4	B3 for answers which round to 16.2 or answer 17 OR M3 for $[n] = \frac{\log\left(\frac{200\,000}{90\,720}\right)}{\log 1.05}$ oe or suitable graph showing correct solution or correct trials as far as 16 and 17 or M2 for $1.05^n = \frac{200\,000}{90\,720}$ oe or graph of $y = 1.05^n$ and $y = k$ or at least 3 correct trials ($n > 5$) or M1 for $90\,720 \times 1.05^n = 200\,000$ oe or graph of $y = 1.05^n$ or at least 2 correct trials ($n > 5$)	2026 90720 1 2027 95256 2 2028 1000018.8 3 2029 105019.74 4 2030 110270.727 5 2031 115784.2634 6 2032 121573.4765 7 2033 127652.1503 8 2034 134034.7576 9 2035 140736.4958 10 2036 147773.3205 11 2037 155161.9866 12 2038 162920.0859 13 2039 171066.0902 14 2040 179619.3947 15 2041 188600.3644 16 2042 198030.3827 17 2043 207931.9018 3 sf acceptable to imply method

Question	Answer	Marks	Partial Marks	Guidance
17(a)	Correct sketch 	B3	M2 for exponential sketch, intersecting straight line twice or M1 for exponential sketch	Consider other sketches e.g. $0.5x + 1.5 - 2^x$
	-2.69, 1	B1		
17(b)	$x > 1$ $x < -2.69$	2	B1 for each FT <i>their</i> -2.69 and <i>their</i> 1 if at least M2 in part (a)	Condone $\geq$ Condone $\leq$