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CAMBRIDGE
International Education

# Cambridge IGCSE™

**MATHEMATICS** **0580/13**

Paper 1 (Core) **May/June 2026**

MARK SCHEME

Maximum Mark: 80

**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 **12** printed pages.

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**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:<br><br>• the specific **content** defined in the mark scheme<br>• the specific **skills** defined in the mark scheme or in the level descriptions<br>• 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:<br><br>• marks are not deducted for errors or omissions<br>• 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<br>• 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. |

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**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.

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**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 |

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| Annotation | Meaning |
|---|---|
| C | Communication mark |
|  | 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 |

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| Annotation | Meaning |
|---|---|
|  | Correct |
|  | Correct answer from incorrect working |

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## 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 |
| nfww | not from wrong working |
| oe | or equivalent |
| rot | rounded or truncated |
| SC | Special Case |
| soi | seen or implied |

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| Question | Answer | Marks | Partial Marks | Guidance |
|---|---|---|---|---|
| 1 | 4 999 500 | **1** | | Ignore commas. |
| 2 | Seven hundred [and] seven thousand [and] seven hundred | **1** | | |
| 3a | Chord | **1** | | Accept poor spelling. |
| 3b | Sector | **1** | | Accept poor spelling.<br>Do not accept sector angle. |
| 4 | 350 | **2** | **M1** for $140 + 30 \times 7$<br>or **B1** for 210 | |
| 5(a) | 27 | **2** | **M1** for $\frac{75}{6+10+9} \times k$, where $k = 1$, 6, 10 or 9 | M1 implied by 3, 18, 30. |
| 5(b) | 13 57 | **1** | | Accept 1.57 pm, 13 57h[ours].<br>Do not accept 13h 57min, 13°57°, 13 57 pm or 1.57. |
| 6 | 20 | **3** | **M2** for $\frac{2 \times 420}{3} \div 14$ oe<br>or **M1** for $[2\times]\ \frac{420}{3}$ oe<br>or for $\frac{420}{14}$ oe | M1 implied by 140 or 280 or 30. |
| 7(a) | 5 | **2** | **M1** for $\frac{1+10+8+(-3)+(-2)+10+7+9}{8}$ oe | For M1, $\frac{40}{8}$, condone 1 error/omission in numerator. |
| 7(b) | 7.5 or $7\frac{1}{2}$ cao | **2** | **M1** for –3, –2, 1, 7, 8 or 7, 8, 9, 10, 10<br>or 7 and 8 identified | Answer $\frac{15}{2}$ scores M1 only. |

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| Question | Answer | Marks | Partial Marks | Guidance |
|---|---|---|---|---|
| 7c | –8 15 | **2** | **B1** for each<br>or for [range = ] 13 or [new range =] 18 | |
| 8(a) | 80 | **1** | | Allow 78 to 82. |
| 8(b) | $\frac{7}{18}$ | **2** | **M1** for $\frac{140}{360}$ oe | |
| 8(c) | 24 | **2** | **M1** for 10° for 8 children soi | E.g. 8 × 3, 30 ÷ 1.25, 0.8 × 20 + 8 |
| 9(a) | Angle between tangent and radius = 90<br><br>Angles in a triangle add to 180 | **2** | **B1** for each | Accept Angle [between] tangent [and] radius [=] 90.<br>Allow diameter for radius. Tangent and radius are perpendicular.<br><br>Accept Angles [in a] triangle add to 180.<br>Allow sum for add or are 180. |
| 9(b) | 35 | **1** | | |
| 9(c) | 110 | **2** | **M1** for 180 – 2 × *their* (b) | *their* (b) < 90 |
| 10 | 23 | **2** | **M1** for $2 \times 5 + \sqrt{169}$<br>or **B1** for 10 or 13 | |
| 11(a) | $\frac{6}{35}$ nfww | **3** | **B2** for $\frac{29}{35}$ oe<br>or **M1** for $\frac{14k}{35k} + \frac{15k}{35k}$ oe or $1 - \left(\frac{2}{5} + \frac{3}{7}\right)$ oe | Allow e.g. $\frac{2\times7}{5\times7} + \frac{3\times5}{7\times5}$ for M1. |
| 11(b) | 28 | **2** | **M1** for $\frac{12[\times7]}{3}$ oe | or equivalent fraction for M1 |

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| Question | Answer | Marks | Partial Marks | Guidance |
|---|---|---|---|---|
| 12 | $5c(1 - 3cd)$ final answer | **2** | **B1** for $5(c - 3c^2d)$ or $c(5 - 15cd)$ or $5c(1 - 3cd)$ seen and spoilt | Accept final bracket missing. |
| 13(a) | –4, 1, 4 | **2** | **B1** for 1 correct | |
| 13(b) | Correct curve | **4** | **B3FT** for 6 points plotted<br>or **B2FT** for 4 points plotted<br>or **B1FT** for 2 points plotted | Tolerance ± ½ small square radially.<br>Allow curve to imply plots if no plots seen.<br>Curve within ½ small square radially of where the correct points lie.<br><br>Correct curve must be continuous, parabolic in shape and close to symmetrical.<br><br>Curve must not be vertical at $x = 0$ and $x = 6$ for more than 5 small squares. |
| 13(c) | Line $y = 3$ drawn | **1** | | Line from $x = 0$ to $x = 6$. |
| 13(d) | 1.5 to 1.7 , 4.3 to 4.5 | **2** | **B1FT** for each | FT *their* curve tolerance ± 0.1.<br>If more than 2 intersections then all must be correct for 2 marks or B1FT for any one correct. |
| 14(a) | Correct net of triangular prism | **3** | **B2** for 2 correct extra faces in correct places<br>or **B1** for 1 correct extra face in correct place | Condone good freehand.<br>Maximum of 5 faces for B2 or B1.<br>Maximum 1 mark if missing internal lines. |
| 14(b) | 24 | **2** | or **M1** for $\frac{3 \times 4}{2} \times 4$ oe | |

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| Question | Answer | Marks | Partial Marks | Guidance |
|---|---|---|---|---|
| 15(a) | 24 | **2** | **M1** for $\frac{25-19}{25}[\times 100]$ oe<br>or $[100-]\frac{19}{25}\times 100$ oe<br>or $\left(1-\frac{19}{25}\right)[\times 100]$ oe | M1 implied by 0.24 oe or 76. |
| 15(b) | 16.5[0] | **2** | **M1** for $15 \times \left(1+\frac{10}{100}\right)$ oe<br>or **B1** for 1.5[0] | |
| 16 | 6 | **2** | **M1** for $\pi r^2 = 36\pi$ or better | |
| 17 | 0.85[0] oe | **1** | | Accept .85 |
| 18(a) | 3 | **1** | | |
| 18(b) | 0.2 cao | **2** | **M1** for $\frac{1}{5}$ | |
| 19(a) | $2^2 \times 3 \times 7$ or $2 \times 2 \times 3 \times 7$ | **2** | **B1** for 2, 2, 3, 7<br>or **M1** for correct factor tree/diagram/list/table | Allow B1 or M1 for inclusion of 1 with correct factors. |
| 19(b) | 5 | **1** | | |
| 19(c) | $2^5 \times 3 \times 7$ | **1** | | Accept e.g. $2 \times 2 \times 2^3 \times 3 \times 7$ but must be prime numbers. |
| 20(a) | Translation<br>$\begin{pmatrix} 2 \\ -7 \end{pmatrix}$ | **2** | **B1** for each | In parts **(a)** and **(b)**:<br>More than one transformation scores 0.<br>Treat extra properties as choice.<br>Accept 2 right, 7 down. |

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| Question | Answer | Marks | Partial Marks | Guidance |
|---|---|---|---|---|
| 20(b) | Enlargement<br><br>(sf) $\frac{1}{2}$ oe<br><br>(centre) (0, 0) oe | **3** | **B1** for each | Note: if centre is described as a vector with word or bracket notation, do not treat as additional transformation.<br>Accept $\times\frac{1}{2}$, times $\frac{1}{2}$, $\frac{1}{2}$ times smaller.<br>Accept origin, O, 0,0 , position vector $\begin{pmatrix}0\\0\end{pmatrix}$. |
| 20(c) | Triangle plotted at (–4, –2), (–2, –2), (–3, –6) | **2** | **B1** for correct orientation wrong centre | Allow freehand lines if clear intention. |
| 21 | $\frac{300\times0.5}{10}$ | **M1** | | |
| | 15 | **A1** | If 0 scored, **SC1** for 2 correct roundings or for all correct but with any trailing zeros | Do not accept $\frac{15}{1}$. |
| 22 | $6(x-1)=5x+8$ or $6x-6=5x+8$ | **B1** | | |
| | 14 final answer | **B2** | **M1** for $6x-5x=6+8$ | |
| 23 | $[x=]$ –3.5 or $-3\frac{1}{2}$ or $-\frac{7}{2}$<br>$[y=]$ 2.5 or $2\frac{1}{2}$ or $\frac{5}{2}$ | **3** | **M1** for correctly eliminating one variable<br>**A1** for $[x=]$ –3.5 or $-3\frac{1}{2}$ or $-\frac{7}{2}$<br>**A1** for $[y=]$ 2.5 or $2\frac{1}{2}$ or $\frac{5}{2}$<br>If A0 scored, **SC1** for 2 values satisfying one of the original equations | Allow one arithmetic error.<br>A sign error is not an arithmetic error.<br><br>M1 for e.g. $14ky=35k$ or $14kx=-49k$<br><br>Substitution method:<br>**M1** for one equation in one variable<br>e.g. $4(9-5y)+6y=1$<br><br>**SC1** for 2 values that substitute to give<br>$x+5y=9.00$<br>$4x+6y=1.00$ |

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