



Cambridge IGCSE[®]

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/01

Paper 1 (Core)

For examination from 2020

MARK SCHEME

Maximum Mark: 40

Specimen

This document has 6 pages. Blank pages are indicated.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

<p>GENERIC MARKING PRINCIPLE 1:</p> <p>Marks must be awarded in line with:</p> <ul style="list-style-type: none"> ● the specific content of the mark scheme or the generic level descriptors for the question ● the specific skills defined in the mark scheme or in the generic level descriptors for the question ● the standard of response required by a candidate as exemplified by the standardisation scripts.
<p>GENERIC MARKING PRINCIPLE 2:</p> <p>Marks awarded are always whole marks (not half marks, or other fractions).</p>
<p>GENERIC MARKING PRINCIPLE 3:</p> <p>Marks must be awarded positively:</p> <ul style="list-style-type: none"> ● marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate ● marks are awarded when candidates clearly demonstrate what they know and can do ● marks are not deducted for errors ● marks are not deducted for omissions ● answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.
<p>GENERIC MARKING PRINCIPLE 4:</p> <p>Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.</p>
<p>GENERIC MARKING PRINCIPLE 5:</p> <p>Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).</p>

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

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, given 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

Question	Answer	Marks	Partial Marks
1(a)	5	1	
1(b)	1	1	

Question	Answer	Marks	Partial Marks
2	1 2 4 8 16	2	B1 for 3 or 4 factors in list of maximum 5 numbers

Question	Answer	Marks	Partial Marks
3	1.15	2	M1 for $5 - (1.50 + 2.35)$ or If 0 scored, SC1 for 115

Question	Answer	Marks	Partial Marks
4(a)	$\frac{1}{17}$	1	
4(b)	-2, 1, 6	2	B1 for terms increasing by 3 and then 5 or B1 for any correct term seen on answer line

Question	Answer	Marks	Partial Marks
5(a)	6	1	
5(b)	2.5	2	M1 for ordered list (6 in correct order) or 2 and 3 identified as either side of the median
5(c)	2.9	2	M1 for method for total Σf or by 29

Question	Answer	Marks	Partial Marks
6(a)	95	2	M1 for $180 - 40 - 55$ or better or $40 + 55$
6(b)	130	1	
	Corresponding	1	

Question	Answer	Marks	Partial Marks
7	560	1	
Question	Answer	Marks	Partial Marks
8(a)	3.46×10^2	1	
8(b)	2.16×10^{-3}	1	
Question	Answer	Marks	Partial Marks
9	$\frac{20+30}{0.5}$ 100	M1 A1	If 0 scored, SC1 for two of 20, 30 or 0.5 seen
Question	Answer	Marks	Partial Marks
10	Correct shape in correct place	2	If 0 scored, SC1 for correct size and orientation or SC1 for 3 or 4 points correct
Question	Answer	Marks	Partial Marks
11	$x + 4$ final answer	1	
Question	Answer	Marks	Partial Marks
12	$[r =] \sqrt{\frac{A}{4\pi}}$ or $\frac{\sqrt{A}}{\sqrt{4\pi}}$ oe final answer	2	M1 for $[r^2 =] \frac{A}{4\pi}$ or $\sqrt{A} = \sqrt{4\pi r^2}$ or better
Question	Answer	Marks	Partial Marks
13	Correctly eliminating one variable [x =] 1 [y =] 2	M1 A1 A1	If 0 scored, SC1 for correct substitution and evaluation to find the other variable SC1 if no working shown, but 2 correct answers given

Question	Answer	Marks	Partial Marks
14(a)	<i>A</i> correct	1	
	<i>B</i> correct	1	
14(b)	$\frac{3}{-4}$ oe	2	FT <i>their A</i> and <i>their B</i> provided these do not have same <i>y</i> -coordinate M1 for $\frac{\text{rise}}{\text{run}}$ attempted from <i>their</i> points

Question	Answer	Marks	Partial Marks
15(a)	Correct probabilities on branches	1	
15(b)	$\frac{1}{25}$	2	M1 for $\frac{1}{5} \times \frac{1}{5}$ oe

Question	Answer	Marks	Partial Marks
16(a)	E	1	
16(b)	B	1	