

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/13 May/June 2017

Paper 1 (Core) MARK SCHEME Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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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

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

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Question	Answer	Marks	Part marks
1(a)	9 or 36	1	
1(b)	π	1	
1(c)	3	1	
1(d)	36 or 9	1	
2	Any two correct fractions	2	B1 for each
3	2	1	
4(a)	Chord	1	
4(b)	Segment	1	
5	Correct angle drawn	1	
6(a)	Isosceles	1	
6(b)	Trapezium	1	
7(a)	(2, 3)	1	
7(b)	Correct point	1	
8	36π сао	1	
9	60 nfww	2	M1 for $8 \times 8 - 2 \times 2$ or $8 \times 6 + 6 \times 2$
10	155	2	M1 for 70 + 85 or 180 – 25
11	42 000	1	
12	16	1	
13	3.8	1	
14	A and C	2	M1 for one correct rearrangement of <i>B</i> , <i>C</i> or <i>D</i> into ' $y =$ ' form or for gradients of <i>B</i> , <i>C</i> and <i>D</i> given
15	10x - 9 Final answer	2	B1 for $10x$ or -9 in answer or M1 for $12x - 3$ or $-2x - 6$ seen
16	4, -4	2	B1 for each or M1 for $3x^2 = 48$
17	60	2	M1 for $500 \times \frac{3}{100} [\times 4]$ oe, soi by 15

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Question	Answer	Marks	Part marks
18	12.5	2	M1 for $\frac{x}{5} = \frac{10}{4}$ or for [scale factor=] 2.5 or 0.4 oe
19(a)	<	1	
19(b)	$-1 < x \leqslant 4$	2	B1 for $-1 < x$ oe and B1 for $x \leq 4$ oe
20	Rotation 90° [anticlockwise] oe [about] origin oe	3	B1 for each
21	Translation $ \begin{pmatrix} -3 \\ 0 \end{pmatrix} $	2	B1 for each