

Cambridge International Examinations

Cambridge International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/13

Paper 1 (Core) May/June 2016

MARK SCHEME
Maximum Mark: 40

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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.

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Abbreviations

awrt answers which round to cao correct answer only

dep dependent

FT follow through after error isw ignore subsequent working

oe or equivalent SC Special Case

nfww not from wrong working

soi seen or implied

Question	Answer	Mark	Part Marks
1 (a)	8, 2, 6, 4	2	B1 for 3 correct frequencies
(b)	Complete correct bar chart including scale	3FT	FT their frequencies. B1 for correct linear scale B1 FT for 2 correct height
2	$\frac{2}{5}$ 42% 0.49	2	M1 for 2 correct in same form
3		1	
4	Rhombus Kite	1 1	
5	6	1	
6	24	2	M1 correct first step If 0 scored, SC1 for 24k on answer line
7 (a)	$\frac{45}{360}$ or equivalent fraction	2	B1 for 45 seen
(b)	24	2	M1 for equating 135 with 9 students
8	-1	2	M1 for $5 \times 3 - 3 \times 7$ or better
9 (a)	48	1	
(b)	30	2	M1 for angle PTO or $PSO = 90^{\circ}$ soi
10	25	3	B1 for two of 4, 2 and 0.5 M1 for correct evaluation of <i>their</i> $4 + 2 \times 0.5$

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Question	Answer	Mark	Part Marks
11	90p + 85q	2	B1 for $90p$ or $85q$ seen If 0 scored, SC1 for $0.9p + 0.85q$
12	9 π + 18	2 1	M1 for $0.5 \times 18 \times \pi$ or equivalent forms
13	12	2	M1 for a correct first step e.g. $\frac{9}{6} = \frac{PR}{8}$ or [scale factor] $\frac{2}{3}$
14 (a)	f(x) - 1	1	
(b)	$-15 \le \mathbf{f}(x) \le 6$	2	B1 for 6 and –15 stated, but not shown as a range or B1 for 1 correct inequality.
15 (a)	9 16 16 20	2	B1 for 1 correct row or column.
(b)	64	1	
(c)	4n + 4 oe	2	B1 for $4n + k$ or $jn + 4$ $(j \neq 0)$