



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

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**CAMBRIDGE INTERNATIONAL MATHEMATICS**

**0607/13**

Paper 1 (Core)

**May/June 2016**

MARK SCHEME

Maximum Mark: 40

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**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.

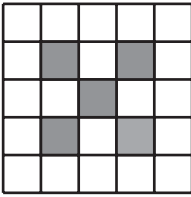
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### Abbreviations

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	<b>B1</b> for 3 correct frequencies
(b)	Complete correct bar chart including scale	3FT	<b>FT</b> <i>their</i> frequencies. <b>B1</b> for correct linear scale <b>B1 FT</b> for 2 correct height
2	$\frac{2}{5}$ 42% 0.49	2	<b>M1</b> for 2 correct in same form
3		1	
4	Rhombus Kite	1 1	
5	6	1	
6	24	2	<b>M1</b> correct first step If 0 scored, <b>SC1</b> for $24k$ on answer line
7 (a)	$\frac{45}{360}$ or equivalent fraction	2	<b>B1</b> for 45 seen
(b)	24	2	<b>M1</b> for equating 135 with 9 students
8	-1	2	<b>M1</b> for $5 \times 3 - 3 \times 7$ or better
9 (a)	48	1	
(b)	30	2	<b>M1</b> for angle $PTO$ or $PSO = 90^\circ$ soi
10	25	3	<b>B1</b> for two of 4, 2 and 0.5 <b>M1</b> 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	<b>B1</b> for $90p$ or $85q$ seen If 0 scored, <b>SC1</b> for $0.9p + 0.85q$
12	$9\pi + 18$	2 1	<b>M1</b> for $0.5 \times 18 \times \pi$ or equivalent forms
13	12	2	<b>M1</b> 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>B1</b> for 6 and $-15$ stated, but not shown as a range or <b>B1</b> for 1 correct inequality.
(b)	$-15 \leq f(x) \leq 6$	2	
15 (a)	$\begin{array}{cc} 9 & 16 \\ 16 & 20 \end{array}$	2	<b>B1</b> for 1 correct row or column.
(b)	64	1	<b>B1</b> for $4n + k$ or $jn + 4$ ( $j \neq 0$ )
(c)	$4n + 4$ oe	2	