MARK SCHEME for the October/November 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/11   Paper 1 (Core), maximum raw mark 40

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.

Cambridge will not enter into discussions about these mark schemes.

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Abbreviations

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		25	1	
2	(a)	16	1	
	(b)	Different closed shape with area 11 cm^2	2	**M1** for 11 seen
3	(a)	–8	1	
	(b)	$\frac{3}{5}$	2	**M1** for $\frac{6}{10}$ seen. If zero scored, **SC1** for correct simplification of their fraction.
4	(a)	**B**	1	
	(b)	**C**	1	
5	(a)	6	1	
	(b)	7	1FT	**FT** 42 ÷ *their* **(a)**
6		$\sqrt{7}$	1	
7		$x = 1$ $y = -2$	1 1	If zero, **SC1** for 1 and –2 only clearly indicated
8	(a)	240	2	**M1** for $\frac{120}{360} \times 720$ oe
	(b)	180	2	**M1** for 360 – (120 + 80 + 70) seen or better
9		$x = 2$	1	
10		Both correct ruled tangents	1	and no other lines

Question	Answer	Mark	Part Marks
11 (a) (i)	$5x - 17$ Final answer	2	**B1** for either $5x$ or -17
(ii)	$8d^2$ Final answer	1	
(iii)	$\dfrac{x}{6}$ oe	2	**M1** for $\dfrac{2x}{6} - \dfrac{x}{6}$ oe
(b)	$2a(3b - 4a)$ Final answer	2	**B1** for answer $2(3ab - 4a^2)$ or $a(6b - 8a)$ If zero scored, **SC1** for correct answer seen then bracket multiplied out
(c)	7	1	
(d)	$x < 5.5$ oe Final answer	2	**M1** for correct first step If zero scored, **SC1** for answer 5.5
12 (a)	Correct plots	2	**B1** for 2 or 3 points plotted correctly
(b)	Negative	1	
(c)	Ruled line	1	
	through (4, 3600)	1	Dependant on: single straight line with negative gradient
13	100	3	**M1** for 25 seen and **M1** for $\dfrac{1}{3} \times 25 \times 12$ or better
14	10	2	**M1** for $[c^2 =]\ 6^2 + 8^2$ or better