CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/12 Paper 1 (Core), maximum raw mark 40

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

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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)	$\frac{x}{6}$ oe	2	**M1** for $\frac{2x}{6} - \frac{x}{6}$ 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 $\frac{1}{3} \times 25 \times 12$ or better
14	10	2	**M1** for $[c^2 =] 6^2 + 8^2$ or better