## **CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**Cambridge International General Certificate of Secondary Education** 

## MARK SCHEME for the October/November 2015 series

## 0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

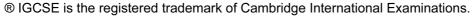
0607/12 Paper 1 (Core), maximum raw mark 40

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**

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

Ç	Question	Answer	Mark	Part Marks
1		25	1	
2	(a)	16	1	
	(b)	Different closed shape with area 11 cm <sup>2</sup>	2	M1 for 11 seen
3	(a)	-8	1	
	<b>(b)</b>	$\frac{3}{5}$	2	M1 for $\frac{6}{10}$ seen.  If zero scored, SC1 for correct simplification of their fraction.
4	(a)	В	1	
	(b)	C	1	
5	(a)	6	1	
	(b)	7	1FT	<b>FT</b> 42 ÷ <i>their</i> ( <b>a</b> )
6		$\sqrt{7}$	1	
7		x = 1 $y = -2$	1 1	If zero, <b>SC1</b> for 1 and –2 only clearly indicated
8	(a)	240	2	<b>M1</b> 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

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(	Question	Answer	Mark	Part Marks
11	(a) (i)	5x - 17 Final answer	2	<b>B1</b> 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	<b>B1</b> for answer $2(3ab - 4a^2)$ or $a(6b - 8a)$
		rmai answei		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
		Filiai aliswei		If zero scored, SC1 for answer 5.5
12	(a)	Correct plots	2	<b>B1</b> 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	<b>M1</b> for $[c^2 = ] 6^2 + 8^2$ or better