UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/01 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 must be read in conjunction with the question papers and the report on the examination.

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1	**(a)**	18	B1	
	(b)	17	B2	If B0 award M1 for $5^2 = 25$ or $2^3 = 8$ seen **[3]**
2	**(a)**	Samir 100 Josef 150	B2	If B0 award M1 for 250 ÷ 5 seen or implied by 50
	(b)	1600	B2	If B0 award M1 for $\frac{600}{3}$ seen or implied by 200 **[4]**
3	**(a)**	$\frac{7-3}{4-2}$	M1	For using the gradient formula or sketch
		$\frac{4}{2}$ oe	A1	
	(b)	(3, 5)	B1	**[3]**
4		100 cm^2	B2	If B0 award M1 for 60 ÷ 360 or 360 ÷ 60 seen, oe **[2]**
5	**(a)**	120	B1	
	(b)	10	B2	If B0 award B1 for either 165 or 175 seen **[3]**
6	**(a)**	Correct diagram	B1	
	(b)	1, 4, 9, 16	B1ft	ft on their last number
	(c)	n^2 or $n \times n$ oe cao	B1	**[3]**
7		For rearranging equation(s) oe	M1	
		For coefficients of x and y equal if using elimination method or correct substitution	M1	Independent
		$x = 3,\ y = -2$ www 4	A1A1	**[4]**
8	**(a)**	55°	B2	If B0 award M1 for 180 – 70 seen or implied by 110°
	(b)	140° 70°	B1 B1	**[4]**

9	**(a)**	$3x - 3y - 2x + 10y$	B1	For correctly multiplying out
		$x + 7y$	B1ft	Dependent on 4 terms
	(b)	$3x(x + 3y^2)$	B2	Award B1 for any other correct factorising
	(c)	$\frac{10x - 3x}{15}$ oe	M1	
		$\frac{7x}{15}$	A1	**[6]**
10	**(a)**	100	B1	
	(b)	$2 \times 25 + 4 \times 20$	M1	
		130	A1	**[3]**
11	**(a)**	Both points correctly plotted	P1	Tolerance is 1mm for parts **(a) (c)** and **(d)**
	(b)	32.5	B2	If B0 award M1 for 260 seen or implied. If working shown condone one error or omission.
	(c)	Correct point	P1ft	or $\frac{\sum f}{8}$ seen
	(d)	Correct ruled line passing through mean point	L1ft	For line though their mean point and intercepting vertical axis between 10 and 25 **[5]**