CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/13 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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CAMBRIDGE
International Examinations

1	**(a)**	20 200	**1**	
	(b)	6	**1**	
	(c)	30	**1**	
2		5	**1**	
3	**(a)**	Correct bar drawn (height at 4)	**1**	
	(b)	2	**1**	
	(c)	14	**1**	
	(d)	16	**2**	**M1** 2×8
4		75 ± 2	**1**	
5	**(a)**	4	**1**	
	(b)	1	**1**	
	(c)	2.5	**2**	**B1** for ordered list seen with at least 7 numbers or 2 and 3 indicated as either side of median
6	**(a) (i)**	*BDE* or *CDE*	**1**	
	(ii)	*AED* or *CED*	**1**	
	(iii)	Similar Alternate angles are equal	**1** **1**	
	(b)	9	**2**	**M1** for scale factor of $\frac{3}{2}$ or $\frac{2}{3}$ seen or for $6 \times \frac{3}{2}$ or $6 \div \frac{2}{3}$
7		8π	**2**	**M1** for $2 \times 4 \times \pi$
8		Correct sketch	**2**	**M1** for line with general shape that either is correct on and above axis, or starts at (–2, 2), max at (0, 2) and ends at (2, –2) If zero, **SC1** for sketch of $f(x+2)$
9	**(a)**	750	**1**	
	(b)	7.5×10^2	**1FT**	**FT** *their* **(a)** if $a \times 10^k$ with a and k given, if *their* (a) < 1 or *their* (a) ≥ 10

10	**(a)**	$2p(3q+1)$ final answer	**2**	**M1** for $2(3pq+p)$ or $p(6q+2)$
	(b)	$\frac{2}{3}$ oe	**2**	**M1** for correct first step of $5x-2x=6-4$ oe or better
11	**(a)**	11	**1**	
	(b)	25	**1**	
	(c)	$\frac{4}{25}$ oe	**1FT**	**FT** *their* 25
	(d)	$\frac{14}{25}$ oe	**1FT**	**FT** *their* 25
12	**(a)**	[x=] 2, [y=] 1	**4**	**M1** for correct multiplication to equate two coefficients and **M1** for eliminating one variable and **A1** for each correct answer If zero scored, **SC1** for pair of values that satisfy one equation
	(b)	6	**2FT**	**M1** for adding *their x* and *their y* or 8 burgers + 8 drinks = 24