CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/21 Paper 2 (Extended), maximum raw mark 40

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1	**(a)**	$10-(4+3)+2=5$	**1**	
	(b)	$(10-5)\times(7+2)=45$	**1**	
2	**(a)**	108	**3**	**M2** for $\frac{(5-2)\times 180}{5}$ or $180-\frac{360}{5}$ or **M1** for $(5-2)\times 180$ soi by 540 or **M1** for $\frac{360}{5}$
	(b)	132	**2FT**	**M1** for 360 – *their* 108 – 120 or *their* 72 + 60
3	**(a)**	1	**1**	
	(b)	$\frac{1}{4}$ or 0.25	**2**	**M1** for 2 or 64 seen or reciprocal at any stage
4	**(a)**	1, 3023	**1**	
	(b) **(i)**	1	**1**	
	(ii)	*pq*	**1**	
5	**(a)**	$x < 4$ final answer	**3**	**B1** for $3x + 6 > 5x - 2$ **M1 FT** for isolating terms **M1 FT** for completion correctly to answer space If 0 scored **SC1** for $x = 4$
	(b)	Correct diagram	**2FT**	**B1FT** 4 marked and arrow/line to left or for circle at 4
6	**(a)**	$\frac{62}{200}$ oe	**1**	
	(b) **(i)**	Large sample oe	**1**	
	(ii)	372	**1FT**	
7	**(a)**	40	**1**	
	(b) **(i)**	40	**1**	
	(ii)	68	**1**	
8	**(a)**	–3	**1**	
	(b)	$\frac{10a}{b}$	**2**	**M1** for $\frac{a}{b}\times 10^{-2}$ seen

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9		A $y = 2x + 3$ B $y = -3x$ C $y = x^2 - 3$ D $y = 3 - x^2$	**4**	**B1** each
10	**(a)**	$2(2a + 5b)(2a - 5b)$ final answer	**3**	**B2** for $(4a + 10b)(2a - 5b)$ or $(2a + 5b)(4a - 10b)$ or **B1** for $2\left(4a^2 - 25b^2\right)$
	(b)	$\frac{8x - 19}{(2x - 3)(x - 5)}$ final answer	**3**	Accept $2x^2 - 13x + 15$ **M2** for $\frac{2(x - 5) + 3(2x - 3)}{(2x - 3)(x - 5)}$ or **M1** for common denominator $(2x - 3)(x - 5)$
11	**(a)**	3	**1**	
	(b)	75	**2**	**B1** for [log] 25 seen

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