

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/23

Paper 2 (Extended), maximum raw mark 40

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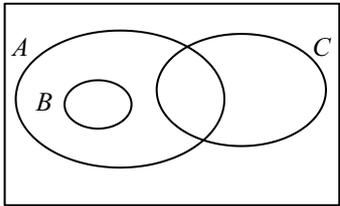
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Page 2	Mark Scheme	Syllabus	Paper
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1	(a) 23 (b) $4n - 1$	1 2	B1 for $4n$ seen
2	(a) -20 (b) $-\frac{3}{5}$	2 3	M1 for $\frac{x}{5} = 3 - 7$ or $x + 35 = 15$ B2 for $5x + 13 = 10$ M1 for $7x + 21 - 2x \pm 8$
3	$\frac{9 \times 60}{8 + 10 \text{ (or 12)}}$ $\frac{540}{18 \text{ or } 20}$ $30 \text{ or } 27$	M1 A1 A1	
4	(a) $\frac{1}{125}$ (b) (i) x^{12} (ii) x^3	2 1 2	B1 for 5 soi by 125 or 15625 seen or sight of inversion at any stage B1 for x^6 or $\frac{x^5}{x^2}$
5	U 	3	B1 for each of $A \cup B = A$ $B \cap C = \emptyset$ $A \cap C \neq \emptyset$ satisfied
6	(a) $\frac{12}{5}$ (b) $-\frac{12}{13}$	1 3	M1 for $5^2 + 12^2$ + SC1 for negative fraction
7	(a) $3(x + 5y)(x - 5y)$ (b) $(5p - 3)(3a + 2b)$	2 2	B1 for $3(x^2 - 25y^2)$ or $(3x + 15y)(x - 5y)$ or $(x + 5y)(3x - 15y)$ M1 for $5p(3a + 2b) - 3(3a \pm 2b)$ oe

Page 3	Mark Scheme	Syllabus	Paper
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8	(a)	$p = 4$ $q = -6$	1 1	
	(b)	$2\sqrt{13}$	3	M1 for $\sqrt{4^2 + (-6)^2}$ A1 for $\sqrt{52}$
9		20°	2	M1 for 70 seen
10	(a)	-7	2	B1 for $x = 4$
	(b)	$13 - 6x$	2	M1 for $2(5 - 3x) + 3$
	(c)	$\frac{5-x}{3}$ oe	2	M1 for $y + 3x = 5$ or $x = 5 - 3y$ or fully correct reversed flow chart.