

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/22

Paper 2 (Extended), maximum raw mark 40

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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
nfw	not from wrong working
soi	seen or implied

1	(a)	0.09	1	
	(b)	20	1	
2	(a) (i)	1	1	
	(ii)	1000	1	
	(b)	5^7	1	
3		$2\sqrt{13}$	3	M1 for $\sqrt{(-6)^2 + 4^2}$ oe A1 for $\sqrt{52}$
4	(a)	0.23, 0.3, 0.15, 0.2	2	M1 for at least 2 of $\frac{46}{200}, \frac{12}{40}, \frac{15}{100}, \frac{100}{500}$ soi
	(b)	Dieter, More throws oe	1	
	(c)	246	1	
5	(a)	(4, 4)	1	
	(b)	-2	2	M1 for clear evidence of $\frac{\text{rise}}{\text{run}}$
6		$28 + 10\sqrt{3}$ or $2(14 + 5\sqrt{3})$ final answer	2	M1 for $25 + 5\sqrt{3} + 5\sqrt{3} + \sqrt{3} \times \sqrt{3}$ or better
7		$x \geq 5.5$ or $5\frac{1}{2}$ or $\frac{11}{2}$ final answer	3	M1 for $2x + 3 \leq 4x - 8$ oe M1 FT for $3 + 8 \leq 4x - 2x$ oe
8		396π	3	M1 for $\pi \times 6^2 \times 10$ or better M1 for $\frac{1}{3} \times \pi \times 6^2 \times 3$ or better

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9	$x = 3, y = -2$	4	M1 for correctly equating one set of coefficients M1FT for correct method to eliminate one variable A1 for $x = 3$ or $y = -2$ If zero scored SC1 for correct substitution into one of the original equations and correct evaluation, to find the other variable
10 (a)	4	1	M1 for correct use of a $a \log x = \log a^x$ M1 for correct use of $\log a + \log b = \log ab$ or $\log a - \log b = \log \frac{a}{b}$
(b)	1000	1	
(c)	10	3	
11 (a)	110	2	M1 for angle $DCO = 90 - 55$
(b)	55	1FT	FT $\frac{1}{2}$ their (a)
(c)	105	1	
12	F E D A	1 1 1 1	