CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/12 Paper 1 (Core), 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
nfww not from wrong working
soi seen or implied

1	**(a)**	5	**1**	
	(b)	1	**1**	
2		1 2 4 8 16	**2**	**B1** for 3 or 4 factors in list of maximum 5 numbers
3		1.15	**2**	**M1** for $5 – (1.50 + 2.35)$ oe If 0 scored, **SC1** for 115
4	**(a)**	$\frac{1}{17}$	**1**	
	(b)	–2, 1, 6	**2**	**B1** for terms increasing by 3 and then 5 or **B1** for any correct term seen on answer line
5	**(a)**	6	**1**	
	(b)	2.5	**2**	**M1** for ordered list (6 in correct order) or 2 and 3 identified as either side of the median
	(c)	2.9	**2**	**M1**for method for total Σf soi by 29
6	**(a)**	95	**2**	**M1** for 180 – 40 – 55 or better or 40 + 55
	(b)	130	**1**	
		Corresponding	**1**	
7		560	**1**	
8	**(a)**	3.46×10^2	**1**	
	(b)	2.16×10^{-3}	**1**	
9		$\frac{20 + 30}{0.5}$	**M1**	If 0 scored, **SC1** for two of 20, 30 or 0.5 seen
		100	**A1**	
10		Correct shape in correct place.	**2**	If 0 scored, **SC1** for correct size & orientation or **SC1** for 3 or 4 points correct

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11	$x + 4$ final answer	**1**	
12	$[r =] \sqrt{\frac{A}{4\pi}}$ or $\frac{\sqrt{A}}{\sqrt{4\pi}}$ oe final answer	**2**	**M1** for $[r^2 =] \frac{A}{4\pi}$ or $\sqrt{A} = \sqrt{4\pi r^2}$ or better
13	Correctly eliminating one variable $[x =] 1$ $[y =] 2$	**M1** **A1** **A1**	 If 0 scored, **SC1** for correct substitution and evaluation to find the other variable. **SC1** if no working shown, but 2 correct answers given.
14 (a)	A correct B correct	**1** **1**	
(b)	$-\frac{3}{4}$ oe	**2FT**	**M1** for $\frac{\text{rise}}{\text{run}}$ attempted from *their* points provided *their A* and *B* do not have same y co-ordinate
15 (a)	Correct probabilities on branches	**1**	
(b)	$\frac{1}{25}$	**2**	**M1** for $\frac{1}{5} \times \frac{1}{5}$ oe
16 (a)	E	**1**	
(b)	B	**1**	

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