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CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

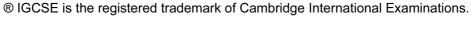
0607/62 Paper 6 (Extended), maximum raw mark 40

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.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2015 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.





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Syllabus	Pully	1
0007	CA Y	X (V)

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Mark Scheme	Syllabus	P. Mary
Cambridge IGCSE – October/November 2015	0607	62 4/70 %
		30%
tions		- CA
correct answer only		COM
dependent		
		Cambridge IGCSE – October/November 2015 0607 tions correct answer only

Abbreviations

follow through after error FTignore subsequent working isw

or equivalent oe

rounded or truncated rot

SCSpecial Case

not from wrong working nfww

soi seen or implied

A	INVES	TIGATION STARS		
Q	Question Answer		Mark	Part Marks
1	(a)	360 ÷ 7 oe	1	
	(b)	$[A=] \frac{360}{n} \text{oe}$	1	
2	(a)	102.85 to 102.9 or 103	2	M1 for $\frac{720}{7}$ oe
	(b) (i)	3	1	
	(ii)	3 revolutions oe and 7 angles oe	1	
	(iii)	$\frac{4 \times 360}{7} > 180$ oe	1	
3		$\frac{2 \times 360}{5}$ or equivalent calculation	1	
4	(a)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	B1 for 5 correct cells
	(b)	$[A=]\frac{360n}{2n+1} \text{oe}$	1	

			3, 2
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Question	Answer	Mark	Part Marks
(c)	25	3	B2 for $[n=]$ 12 soi or M1FT for their $\frac{360n}{2n+1} = 172.8$ C opportunities
5 (a)	[1], 2, 3, 4, 5	2	Accept in suitable calculations e.g. $\frac{2}{11} \times 360$ Deduct 1 for extras and 1 for each omission If 0 scored SC1 for 4 or 5 with no working
(b)	$\frac{6}{15} = \frac{2}{5} \text{ soi}$	1	
(c)	48, 96, 168 cao	2	B1 for two correct values of A only or B1 for three correct values plus extras less than 180° or B1 for 2, 4 and 7 [revolutions] soi C opportunity
Communication	on seen in one of 4(c) (two possible places) or 5(c)	1	

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			<u> </u>

B MODELLING BODY MASS				
Question Answer		Mark	Part Marks	
1	(a)	80[kg]	1	
	(b)	1.5[m] or 150cm	1	
	(c)	[M=] 100h - 100 oe seen	1	
	(d)	Straight line with positive gradient	1	
		approx through (1.5, 50) and (2, 100)	1	C opportunity
2	(a)	$M = kh^2$ or $M \propto h^2$ $88 = k \times (2^2 \text{ or } 4)$	1 1	If 0 scored SC1 for 88 = 22 × 4 oe C opportunity
	(b)	$22 \times 1.5^2 = 49.5$ oe	1	
	(c)	1.87[m] or 187cm	1	Condone 1.9[m] but not 190cm
				C opportunity
3	(a)	1.485 to 1.49 [m] or 148.5 to 149 cm	1	Condone 3.06 as a second answer
	(b)	Simple $(100h - 100)$ and	1	Comportunity
		correct conclusion	1	C opportunity
4	(a)	$78 = k \cdot 1.84^n \text{ isw}$ $50 = k \cdot 1.54^n \text{ isw}$	1	
	(b)	$\frac{78}{50} = \frac{k1.84^n}{k1.54^n}$	1	
	(c)	$\frac{\log 1.56}{\log 1.195} \text{ or } \log_{1.195} 1.56$	1	
	(d)	17	2	M1 for $78 = k \times 1.84^{2.5}$ or $50 = k \times 1.54^{2.5}$ or B1 for 16.98 to 16.99
				C opportunity
	(e)	exponential curve	1	C opportunity
5		1.67[] or 1.68 [m]	1FT	FT <i>their</i> 17 rot to at least 2dp C opportunity
	mmunication	on seen in four of 1(d), 2(a), 2(c), 3(a), 4(d),	2	1 mark if seen in two