

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the May/June 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/53

Paper 5 (Core), maximum raw mark 24

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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)	561 601 641	1 1 1	If 0 scored SC1 for $24^2 - 3 \times 5$ $25^2 - 4 \times 6$ $26^2 - 5 \times 7$ } all correct in working
	(b)	Increasing by 40 or $641 + 40$	1	
	(c)	801	1	
				C opportunity
2	(a)	3561	2	M1 for <i>their</i> $99^2 - \text{their } 78 \times \text{their } 80$ B1 for $n^2 + 42n + 441$ B1 for $-n^2 - 2n$ or B1 for 481, 521, 561, 601 with differences 40, 40, 40 B1 dep for calculation to find 441
	(b)	Ten or 10	1	
	(c)	(top right) $n + 2$ oe	1	
		(bottom) $n + 21$ oe	1	
	(d)	$[(n + 21)^2 - n(n + 2)]$ $n^2 + 42n + 441 - n^2 - 2n$ oe	2	
	(e)	55	1	
	(f)	All T-results end in 1 oe [and this ends in 0 oe] or $[n =] 10.05$ and n must be integer oe	1	
3	(a)	617 749 881	2	B1 for one correct
	(b) (i)	$44n + 529$	2	B1 for $44n + k$ or $jn + 529$ C opportunity
	(ii)	$44 \times 10 + 529 = 969$ and $33 \times 33 - 10 \times 12 = 969$	1FT 1	FT <i>their</i> formula with $n = 10$

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4	$\begin{array}{cc} [n + 1 & n + 2] \\ n + w + 1 & \\ n + 2w + 1 & \\ n + 3w + 1 & \end{array}$	1 1FT 1FT	FT <i>their</i> pattern adding only 10 each time
Communication seen in one of 1(c), 2(e), 3(b)(i)		1	