

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/53

Paper 5 (Core), maximum raw mark 24

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.

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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

Question	Answer	Mark	Part Marks														
1	(a) 13 17	1															
	(b) $13 = 2^2 + 3^2$	1															
	$17 = 1^2 + 4^2$	1															
	(c) $1^2 + 10^2$	1															
2	(a) $49 + 576 = 625$ oe	2	B1 for two correct squares														
	(b)	4	B1 for 15 B2 for second column (one for each cell) B1 for third column														
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="width: 33%;"></td><td style="width: 33%;"></td><td style="width: 33%;">41</td></tr> <tr><td></td><td></td><td>61</td></tr> <tr><td></td><td>84</td><td>85</td></tr> <tr><td>15</td><td>112</td><td></td></tr> </table>			41			61		84	85	15	112					
			41														
		61															
	84	85															
15	112																
(c) equal to the sum oe	1	C opportunity															
(d) 29, 420	1	C opportunity															
3	(a) (i) 8, 15, 17	1															
	(ii) $64 + 225 = 289$ oe	2	B1 for one correct square														
	(b)	5	B2 for one correct cell B1 for each of the other three C opportunity														
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td style="width: 33%;">[8]</td><td style="width: 33%;">[15]</td><td style="width: 33%;">[17]</td></tr> <tr><td></td><td>35</td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td>101</td></tr> <tr><td></td><td>143</td><td></td></tr> </table>	[8]	[15]	[17]		35					20		101		143		
[8]	[15]	[17]															
	35																
20		101															
	143																
(c) The square is twice the sum oe	1																

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Question	Answer	Mark	Part Marks
(d)	$(2\sqrt{x})^2 = 4x$ $x - 1 + x + 1 = 2x$	2	B1 for one statement seen or implied.
Communication seen in one of 2(c) , 2(d) or 3(b)		1	