

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

Cambridge International General Certificate of Secondary Education

## **MARK SCHEME for the October/November 2015 series**

### **0607 CAMBRIDGE INTERNATIONAL MATHEMATICS**

**0607/52**

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  
 nfwf not from wrong working  
 soi seen or implied

Question	Answer	Mark	Part Marks															
<b>1</b>	<b>(a)</b> 13 17	<b>1</b>																
	<b>(b)</b> $13 = 2^2 + 3^2$	<b>1</b>																
	$17 = 1^2 + 4^2$	<b>1</b>																
	<b>(c)</b> $1^2 + 10^2$	<b>1</b>																
<b>2</b>	<b>(a)</b> $49 + 576 = 625$ oe	<b>2</b>	<b>B1</b> for two correct squares															
	<b>(b)</b>	<b>4</b>	<b>B1</b> for 15  <b>B2</b> for second column (one for each cell) <b>B1</b> for third column															
	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td></td><td></td><td>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																	
<b>(c)</b> equal to the sum oe	<b>1</b>	<b>C</b> opportunity																
<b>(d)</b> 29, 420	<b>1</b>	<b>C</b> opportunity																
<b>3</b>	<b>(a) (i)</b> 8, 15, 17	<b>1</b>																
	<b>(ii)</b> $64 + 225 = 289$ oe	<b>2</b>	<b>B1</b> for one correct square															
	<b>(b)</b>	<b>5</b>	<b>B2</b> for one correct cell  <b>B1</b> for each of the other three  <b>C</b> opportunity															
	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>[8]</td><td>[15]</td><td>[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																	
<b>(c)</b> The square is twice the sum oe	<b>1</b>																	

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