
CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/53

Paper 5 (Core)

May/June 2016

MARK SCHEME

Maximum Mark: 24

Published

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.

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Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0607	53

Abbreviations

- awrt answers which round to
 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

Questions	Answer	Marks	Part Marks																		
1 (a)	30	1																			
(b)	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>6</td><td>1</td></tr> <tr><td>2</td><td>3</td></tr> <tr><td>3</td><td>2</td></tr> </table>	6	1	2	3	3	2	2	B1 for 1 row correct												
6	1																				
2	3																				
3	2																				
(c) (i)	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td colspan="2">7</td></tr> <tr><td>1</td><td>7</td></tr> <tr><td>7</td><td>1</td></tr> </table> or <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td colspan="2">11</td></tr> <tr><td>1</td><td>11</td></tr> <tr><td>11</td><td>1</td></tr> </table> or <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td colspan="2">13</td></tr> <tr><td>1</td><td>13</td></tr> <tr><td>13</td><td>1</td></tr> </table>	7		1	7	7	1	11		1	11	11	1	13		1	13	13	1	2	B1 for top number B1 for both rows
7																					
1	7																				
7	1																				
11																					
1	11																				
11	1																				
13																					
1	13																				
13	1																				
(ii)	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td colspan="2">9</td></tr> <tr><td>1</td><td>9</td></tr> <tr><td>9</td><td>1</td></tr> <tr><td>3</td><td>3</td></tr> </table>	9		1	9	9	1	3	3	2	B1 for 9 B1 for 3 correct rows										
9																					
1	9																				
9	1																				
3	3																				
(iii)	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td colspan="2">12</td></tr> <tr><td>1</td><td>12</td></tr> <tr><td>12</td><td>1</td></tr> <tr><td>2</td><td>6</td></tr> <tr><td>6</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>4</td><td>3</td></tr> </table>	12		1	12	12	1	2	6	6	2	3	4	4	3	2	B1 for 12 B1 for rows Condone 1 missing row Ignore extras				
12																					
1	12																				
12	1																				
2	6																				
6	2																				
3	4																				
4	3																				
2 (a) (i)	2, 3, 5, 7, 11, 13, 17, 19	1	C opportunity																		
(ii)	Prime	1dep	dep on (a)(i)																		
(b) (i)	[1], 4, 9, 16	1	C opportunity																		
(ii)	Square	1dep	dep on (b)(i)																		
3	169 or 196	1	C opportunity																		

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0607	53

Questions	Answer	Marks	Part Marks
4	26 22	1	
5 (a)	6	1	C opportunity
(b)	18	1	
6 (a)	$4x$	1	
(b)	$8 + 2x$ oe	1	
(c)	$8 + 2x = 4x$ oe $[x =]4$	1 1	C opportunity
7	$2x$ and $2x + 4$ oe No solutions oe	1 1	
Communication in two of 2(a)(i), 2(b)(i), 3, 5(a) and 6(c)		1	