#### UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

## MARK SCHEME for the May/June 2009 question paper

## for the guidance of teachers

0607/05

# 0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

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.

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**M** marks are given for a correct method.

A marks are given for an accurate answer following a correct method.

**B** marks are given for a correct statement or step.

**D** marks are given for a clear and appropriately accurate drawing.

**P** marks are given for accurate plotting of points.

E marks are given for correctly explaining or establishing a given result.

C marks are given for clear communication.

#### Abbreviations

- cao correct answer only
- cso correct solution only
- ft follow through
- oe or equivalent
- soi seen or implied
- ww without working
- www without wrong working

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Question			Ans	wer		Mark		Comments		
1	Number of discs   2   3   4   5   6   7   8	Last disc 2 2 4 2 4 6 8	Number of discs   9   10   11   12   13   14   15	Last disc 2 4 6 8 10 12 14	Number of discs   17   18   19   20	Last disc 2 4 6 8	7	B7	1 for each shaded square	
			16	16						[7]
2	64, 128						2	B1 for each		[2]
3 (a)	2						1	B1		
(b)	30						1	B1		
(c)	8						2	B2 OR M1 for 2 (68 – their 64) A1 correct evaluation		
(d)	126						1	B1		
(e)	144						2	<b>B2</b> OR <b>M1</b> for 2(200 – their 128) or 256 – 2(256–200) oe <b>A1</b> correct evaluation	ft with 2 $\times$ their 128 for 256	[7]

			Page 4	Mark Scheme: Teache		Syllabus	Pape	
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4	(a)	23			2	B2 OR M1 recognise sequer continues in 2's	nce	
	(b)	44			2	B2 OR M1 for 24/2 or better	r	[4]
5	(a)	(10) 8, 6, 4, 2,	9, 5, 1, 3 (7)		1	B1	(	Condone one omission or error
	(b)	corresponding	terms add to 11		1	B1		Accept a diagram indicating this
	(c)	325			1	B1		[3]
					1	C1 for communication Showing strategy Comparing Checking	y [	Award mark for one of: Strategy shown for Question 2 Question 3(c) Question 3(e) Question 4 Indicating comparison of corresponding terms in Question 5(b) Checking a result. [1]
								[Total: 24]