

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/02

Paper 2 (Extended)

For Examination from 2010

SPECIMEN MARK SCHEME

45 minutes

MAXIMUM MARK: 40



TYPES OF MARK

- **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 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 (Papers 5 and 6 only).
- **R** marks are given for appropriate reasoning (Papers 5 and 6 only).

ABBREVIATIONS

- ft Follow throughoe Or equivalentsoi Seen or implied
- www Without wrong working

1	(a)	$\frac{1}{49}$	B1	
	(L)		D1	
	(b)	4	B1	
2	(a)	$y = x^2 + 3$	B1	
	(b)	$y = (x-3)^2$	B1	
3		x = 30 or 150	B1B1	
4		9x + 6y = 21	M1	
		10x + 6y = 24	M1	
		x = 3	A1	
		y = -1	A1	
		OR	OR	
		Writing one variable in terms of the other	M1	
		Substituting	M1	
		x = 3	A1	
		y = 1	A1	
5		$2x^2 - x - 10 = 0$	M1	
		(2x - 5)(x + 2) = 0	M1	
		(2x-5)(x+2) = 0 $x = 2\frac{1}{2}$ or -2	A2	Accept $\frac{5}{2}$
6	(a)	3	B1	
	(b)	$\log(12 \times 3 \div 6^2)$	M2	M1 for evidence of two of the three operations
		$\log 1 = 0$	A1	
7	(a)	$\sqrt{4}\sqrt{3}$	M1	
		$=2\sqrt{3}$	A1	
	(b)	$= 2 \sqrt{3}$ $\sqrt{16}\sqrt{3}$	M1	
		$6\sqrt{3}$	A1	
	(c)	2	B1	

			1	
8	(a)	total = 66 6.6	M1 A1	
	(b)	9	B1	
	(c)	7	B1	
	(d)	4	B1	
9	(a)	62, 79	B2	
	(b)	first differences 5, 7, 9, 11, 13 second differences always 2 $n^2 = 1, 4, 9, 16, 25, 36$ deficient by 1 3 5 7 9 11 n th term = $n^2 + 2n - 1$	M1 M1 M1 A1	
10	(a)	A	B1	
	(b)	C	B1	
	(c)	F	B1	
	(d)	Е	B1	
	(e)	Н	B1	
	(f)	G	B1	