

**CAMBRIDGE**  
INTERNATIONAL EXAMINATIONS

**November 2003**

INTERNATIONAL GCSE

**MARK SCHEME**

**MAXIMUM MARK: 56**

**SYLLABUS/COMPONENT: 0580/01, 0581/01**

**MATHEMATICS**

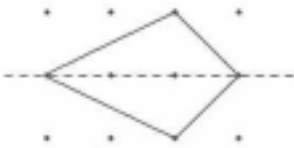
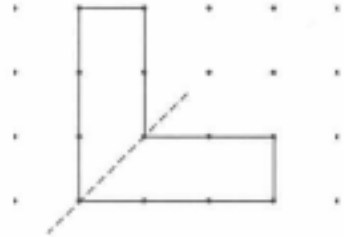
**Paper 1 (Core)**



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Question Number	Mark Scheme Details			Part Mark
1		400 (grams)	1	1
2		(\$)2.7(0)	2	2
3	(a)	$\frac{2}{5}$	1	2
	(b)	0	1	
4	(a)	126°	1	3
	(b)	40(%)	2	
5		1.71(01...)	2	2
6		6 or $\frac{6}{1}$	2	2
7		144°	3	3
8		$1250 \leq \text{r.l.} < 1350$	1 + 1	2
9	(a)	$10x^2 - 15xy$	2	4
	(b)	$6x(x + 2)$	2	
10	(a)	87°	1	3
	(b)	28°	1	
	(c)	$62^\circ \sqrt{\quad}$	1	

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11			1	Lines may be freehand but must go completely through the shape	3
			1		
		Any line through the centre	1		
12		$x = 4, y = 12$	3	<b>M1</b> for attempting to eliminate one unknown by a correct method <b>A1</b> for one correct value (x or y)	3
13	(a)	(i) 2.4096...	1	f.t. from (i)	4
		(ii) 2.41 $\checkmark$	1		
	(b)	19.3 or 19.32(16...)	2	<b>B1</b> for 2.68 seen or implied by 19.2...	
14	(a)	Monday, Tuesday and Saturday	1	All three and no extras	4
		(b) -20	3	<b>B1</b> for -14 seen + <b>M1</b> for (their -14) $\div 7$	
15	(a)	(i) 0.28	1	f.t. from (a)	4
		(ii) 0.275	1		
		(iii) 0.2857... or 0.286	1		
	(b)	$\frac{275}{1000}$ , 28%, $\frac{2}{7}$ or equivalent $\checkmark$	1		
16	(a)	4.58(m)	2	<b>M1</b> for $\sqrt{5^2 - 2^2}$ s.o.i. e.g. $\sqrt{21}$	4
		(b) 66.40 or 66.30 – 66.450	2	<b>M1</b> for $\cos^{-1} \frac{2}{5}$ o.e. incl $\checkmark$	

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17	(a)	3	1	10 <sup>8</sup> etc. penalise once only	4	
	(b)	-4	1	accept -04		
	(c)	0	1			
	(d)	-2	1			
18	(a)	0.4 or 2.6	2	<b>B1</b> for one correct <b>SC1</b> if (0.4,0) (2.6,0)	6	
	(b)	(i)	0	1		Must be ruled
		(ii)	Correct line from $x = -1$ to $x = 4$	1		
(c)	(0,1), (4,5) ✓	2	<b>B1</b> for one correct f.t. from <b>(b) (ii)</b>			