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Mark Scheme (Results)

November 2009

GCSE

GCSE Mathematics (Modular) - 2381
Paper: 5384F/ 12F

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Question		**Working**	**Answer**	**Mark**	**Notes**
1	(a)(i)		Cuboid	1	B1 for cuboid or rectangular prism; ignore spelling
	(ii)		Triangular-based pyramid	1	B1 ignore spelling, accept pyramid, tetrahedron
	(b)			1	B1 for sketch of cone, accept   gets B0
2			14	2	M1 for 500 ÷ 35 or 14.2(...) seen or for addition/subtraction method: 14 or 15 lots of 35 listed. A1 cao
3			Circle of radius 5 cm	1	B1 for circle within overlay (radius 5 cm ± 2mm)
4	(a)		0842	1	B1 (accept 8 42 or 8 42 am)
	(b)		08 12	1	B1 (accept 8 12 or 8 12 am)
	(c)		10	2	M1 for (09 20 - 08 30) – (09 40 - 09 00) or 30 – 20 or for 50 or 40 seen A1 cao
5	(a)		Right-angled	1	B1 accept scalene
	(b)		28-32	1	B1 for 30 ± 2, that is any number in the range 28-32 inclusive

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Question		Working	Answer	Mark	Notes
6		35760 – 35604 = 156 37 × 156 = 5772 OR 5760×37=213120 5604×37=207348 213120-207348=5772	57.72	4	M1 for differencing using figures derived from the table or sight of 156 M1 for ×37 or ×0.37 or sight of digits 213120, 207348 M1 for conversion to £ (eg use of 0.37 or conversion of "5772" to "57.72" A1 cao SC: B2 for sight of the digits 5772
7	(a)		B or F	1	B1 for at least one of B or F (no extras)
	(b)		Not the same	1	B1 for reason, e.g. 'different lengths', 'D is an enlargement of C', 'they are similar', 'they are not the same size' Any contradiction in the answer award 0 marks.
	(c)		A and E	1	B1 cao
	(d)		2	1	B1 cao
8	(a)		7	1	B1 cao
	(b)		10	2	M1 for 4 × 3 or 12 seen A1 cao
9		37 + 3 = 40 40 ÷ 4 = 10	10	2	M1 for +3 or 40 seen or $4x - 3$ A1 cao
10		80 ÷ 5 × 2	32	2	M1 for 80 ÷ 5 or 80 × 2 or sight of 16 or 160 A1 cao

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Question		Working	Answer	Mark	Notes
11	(i)		50	3	M1 for 180 – (65 + 65) oe A1 cao
	(ii)		reason		B1 for isosceles (or two equal (or base) angles because two sides are the same) or angles in a triangle add to 180 Do not accept reasoning that is describing a method of solution.
12	(a)		19 – 19.9	1	B1 for answer in the range 19 to 19.9 inclusive
	(b)		6 – 6.4	1	B1 for answer in the range 6 to 6.4 inclusive
13		2.40 ÷ 4 × 3 (= 1.80) 2 + 2 × 0.34 + 1.80	4.48	4	M1 for 2 × 0.34 or 0.34+0.34 or 0.68 seen M1 for 2.40 ÷ 4 × 3 oe or 1.20+0.60 or 2.40-0.60 or 1.8(0) seen M1 (dep on at least one previous M1) for 2+"0.68"+"1.8(0)" A1 for 4.48 or 448p Accept equivalent methods in pence.
14	(a)	400 × 2.30	920	2	M1 for 400 × 2.30 oe A1 for 920 or 920.00
	(b)	46 ÷ 2.30	20	2	M1 for 46 ÷ 2.30 oe A1 for 20 or 20.00
15	(a)		7	1	B1 cao
	(b)		12	1	B1 cao
	(c)		50	1	B1 cao
	(d)	$4y + 7 - 7 = 13 - 7$ $4y = 6$	1.5	2	M1 for subtracting 7 from both sides or dividing all 3 terms by 4 A1 for 1.5 oe

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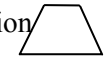
Question		Working	Answer	Mark	Notes
16			Correct elevation 	2	B2 for sketch of trapezium (B1 for trapezium with a rectangle or a parallelogram added at top or a side or lines drawn from vertices.)
17		1.72 ÷ 2 (= 0.86) 7.65 ÷ 9 (= 0.85)	Large box with reasons 9 kg	3	M1 for 1.72 ÷ 2 (= 0.86) M1 for 7.65 ÷ 9 (= 0.85) A1 for large box or 9 kg with correct calculations OR M1 for 2 ÷ 1.72 (= 1.162…) M1 for 9 ÷ 7.65 (= 1.176…) A1 for large box or 9 kg with correct calculations OR M2 for 7.65 × 2 ÷ 9 (=1.70) or for 1.72 ÷ 2 × 9 (=7.74) A1 for large box or 9 kg with correct calculations OR M1 for 1.72 × 9 (= 15.48) M1 for 7.65 × 2 (=15.30) A1 for large box or 9 kg with correct calculations Accept equivalent methods for comparison.
18			Rotation 180° Centre (0, 1)	3	B1 for rotation B1 for 180 or ½ turn B1 for (0, 1) OR B1 enlargement, B1 sf -1, B1 (0,1) (B0 for any combination of transformations)
19		180 ÷ 9 (=20) 20 × 4	80	3	M2 for 180 ÷ (2+3+4) × 4 OR for 40, 60, 80 seen. (M1 for 180÷(2+3+4) OR 20 seen. A1 cao

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Question		Working	Answer	Mark	Notes
20		3→ 33 4 → 72 3.1 → 35.9(91) 3.2 → 39.1(68) 3.3 → 42.5(37) 3.4 → 46.1(04) 3.5 → 49.8(75) 3.6 → 53.8(56) 3.7 → 58.0(53) 3.8 → 62.4(72) 3.9 → 67.1(19) 3.75 → 60.2(34375)	3.7	4	B2 for a trial between 3.7 and 3.8 inclusive (B1 for a trial between 3 and 4 inclusive) B1 for a different trial between 3.7 and 3.8 exclusive B1 (dep on at least one previous B1) for 3.7 NB trials should be evaluated to at least 1dp truncated or rounded

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