Mark Scheme (Results)

November 2009

GCSE Mathematics (Modular) - 2381
Paper: 5384F/11F

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Question		Working	Answer	Mark	Notes
1	(a)	7 48¹0 <u>263</u> <u>217</u>	217	2	M1 for decomposition or adding on or sight of 7 after subtraction A1 cao
	(b)		1.8		B1 cao
	(c)		3.6		B1 cao
2	(a)(i)		Sydney	2	B1 for Sydney
	(ii)		Moscow		B1 for Moscow
	(b)	3 – – 2	5	1	B1 (accept –5)
3	(a)	27 – 18 + 15 =	24	2	M1 27 – 18 + 15 A1 cao
	(b)	24 ÷ 3 or 24 –3 –3 –3 –3…	8	2	M1 24÷3 or complete method for dividing 24 by 3 A1 cao
4	(a)		6.8-7.2	1	B1 6.8-7.2
	(b)		Cross	1	B1 Cross within overlay (2.8–3.2 cm from A)
5	(i)	9 – 4	5	1	B1 cao
	(ii)	10 x 9	90	1	B1 cao
6	(a)	6 x 8.50	51	2	M1 6 x 8.5(0) A1 cao
	(b)	50 ÷ 6	8	2	M1 50 ÷ 6 or 8.3…or repeated addition up to 8x6 or 9x6 oe A1 cao

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Question		Working	Answer	Mark	Notes
7	(a)		5	1	B1 cao
	(b)		line	1	B1
	(c)		Reflection	1	B1 Correct reflection. Allow vertices slightly misplaced (no more than ¼ side square length)
8	(a)	100-(25+40+20)	15%		B1 15 or 15%
	(b)		Salt &Vinegar		B1 Accept S&V, 2nd, 40%, second OR ft from table
	(c)	$\frac{25}{100} = \frac{1}{4}$	$\frac{1}{4}$	2	B2 for $\frac{1}{4}$ (B1 for any equivalent fraction to $\frac{1}{4}$, 0.25, $\frac{25}{100}$)
	(d)	$200 \times \frac{20}{100}$ oe, eg 200 × 20 ÷ 100, 200÷5	40	2	M1 for $200 \times \frac{20}{100}$ oe A1 cao SC: 40% gets M1 A0
9			Triangle	3	B3 Fully correct: One angle and both sides, and drawn as a triangle. (B2 Two of 90˚, 8 cm, 4.5 cm) (B1 One angle or one side) Tolerances: Angle of 90±2˚, side of 4.5 cm drawn as 4.3–4.7 cm, side of 8cm drawn as 7.8-8.2 cm.

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Question		Working	Answer	Mark	Notes
10	(a)	15 × 6 =	90p	2	M1 15×6 or repeated addition of six 15s or fifteen 6s A1 cao
	(b)	75 ÷ 25 =	3p	2	M1 75÷25 or adds up three 25s or subtracts three 25s from 75 A1 cao
11		360 – (100 + 120) 140 ÷ 2	70	3	M1 for 360 – (100 + 120) or 140 seen M1 (dep) for "140" ÷ 2 A1 cao
12	(a)		Enlarged T	2	B2 any correct enlargement (B1 at least one side drawn to a sf of 3 OR a correct enlargement for a a scale factor ≠ 3 or 1)
	(b)	Triangle at (-4,2),(-2,2),(-2,3)	Reflected P		M1 reflection in any line parallel to *y* axis, or correct reflection in *x* axis. A1 cao
13	(a)		Reason		B1 for "angles stay the same" or "angles will be 60°, 70°, 50°" oe (B0 for "not doubled" oe)
	(b)		Reason		M1 for attempt to find scale factor or sight of 10 (unless not relevant) or recognition that same sf has been used. A1 for reason that uses both dimensions of the rectangle or states that a sf of 10 has been used for both dimensions. (accept "5x10=50, 2x10=20" oe for M1A1)
14	(a)		15km	1	B1 cao
	(b)		1700	1	B1 for 1700 or 5pm
	(c)		6½	2	B2 for 6½ hours oe (B1for sight of 2030 – 1400)
	(d)		12	2	M1 for 24 ÷ 2 A1 cao

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Question		Working	Answer	Mark	Notes
15	(a)	60 x 35	180	2	M1 for 60 x 3 oe A1 cao
	(b)	250 ÷ 2	125	2	M1 for 250 ÷ 2 oe A1 cao
16			−1, 0, 1, 2	2	B2 cao B1 for one error or omission.
17			$N=4p+20b$	3	B3 for $N=4p+20b$ or $N=4 \times p+20 \times b$ or N=p4+b20 oe (B2 for correct RHS or $N=k+20b$ oe k≠4p or $N=4p+k$ oe k≠20b where k is algebraic or numerical, $k≠0$) (B1 for $N=ap+bq$; a≠0 or 4, b≠0 or 20; OR 4p+k oe k≠20b where k is algebraic or numerical, $k≠0$) NB: N=something non-linear scores no marks. SC: award B1 for N=p×4 <space> b×20, or N=4p×20b