

Mark Scheme (Results)

November 2009

GCSE

GCSE Mathematics (Linear) - 1380

Paper: 1380/2F

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1380/2F					
Question		Working	Answer	Mark	Notes
1	(a)		72	1	B1 for 72, could be written on number line
	(b)		8.7	1	B1 for 8.7, could be written on number line
	(c)		Arrow at 320	1	B1 allow \pm half graduation
2	(a)(i)		8	1	B1 cao
	(ii)		14	1	B1 cao
	(b)		16	2	B2 cao (B1 for 8, 12, 15 or 17)
3	(a)		Diana	1	B1 cao
	(b)		Charlotte	1	B1 cao
	(c)		Emma	1	B1 cao
4	(a)(i)		Cuboid	1	B1 for cuboid or rectangular prism (ignore spelling)
	(ii)		Triangular-based pyramid	1	B1 ignore spelling, accept pyramid, tetrahedron
	(b)(i)		5	1	B1 cao
	(ii)		9	1	B1 cao

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Question	Working	Answer	Mark	Notes
5	(a)	$\frac{3}{8}$	1	B1 for $\frac{3}{8}$ or equivalent fraction
	(b)	7 squares shaded	1	B1 for 7 squares shaded
	(c)	40	1	B1 cao
6	(a)	0836	1	B1 cao
	(b)	11	1	B1 cao
	(c)	1025	1	B1 for 1025 accept 1025 am, 1025h but not 1025pm
7		2 things wrong	2	B2 for 2 of - 'One flavour missing' - 'Incorrect scale on y-axis', accept '1 is missing' or 'he should have started at 1' - 'No title' (B1 for 1 of these)
8	(a)(i)	21	2	B1 for 21 (ignore additional correct terms)
	(ii)	add 4		B1 for 'add 4' or equivalent explanation or 'every other odd number' oe (accept $4n + 1$)
	(b)	105	1	B1 cao

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Question	Working	Answer	Mark	Notes	
9	(a)		100	1	B1 cao
	(b)		7	1	B1 for 7 or -7 (accept ± 7)
	(c)		8	1	B1 cao
10	(a)		33	1	B1 cao
	(b)		19	1	B1 cao
	(c)		18 and 28	1	B1 cao
	(d)		18 or 36	1	B1 cao
11	(a)		kite	1	B1 cao
	(b)		right angle marked	1	B1 for right angle marked R or with square.
	(c)		acute	1	B1 cao
12	(a)		7	1	B1 cao
	(b)		8	2	M1 for $10 - 2$, accept 2 to 10 and $2 - 10$ A1 cao
	(c)	$45 \div 9 = 5$	5	2	M1 for adding and dividing by 9 A1 cao

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Question	Working	Answer	Mark	Notes
13	(a)		1	B1 for $7p$, accept $7 \times p$, $p7$, $p \times 7$
	(b)		1	B1 for $5ef$, accept $e f5$, $5fe$, $e5f$, etc.
	(c)		1	B1 for $3y^2$ or $y^2 3$
14	(a)(i)		2	B1 cao
	(ii)			B1 for 'angles on a straight line add to 180'
	(b)(i)		3	M1 for $180 - (65 + 65)$ oe or $115 - 65$ A1 cao
	(ii)			B1 for isosceles oe or angles in a triangle add to 180 or exterior angle is equal to sum of opposite interior angles
15	(a)		1	B1 for answer in range 19 to 19.9 inclusive
	(b)		1	B1 for answer in range 6 to 6.4 inclusive
	(c)		2	M1 for $10 \times (16 \text{ to } 17)$ or $5 \times (32 \text{ to } 33)$ oe A1 for 150 – 175 SC B1 for 200
16	(a)	$84 \div 2 = 42$	1	B1 cao
	(b)		2	M1 for $\frac{60}{360}$ or equivalent fraction A1 cao

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Question	Working	Answer	Mark	Notes
17	$2.40 \div 4 \times 3 (= 1.80)$ $2 + 2 \times 0.34 + 1.80$	4.48	4	M1 for 2×0.34 or $0.34 + 0.34$ or 0.68 seen M1 for $2.40 \div 4 \times 3$ oe or $1.20 + 0.60$ or $2.40 - 0.60$ or 1.80 seen M1 (dep on at least one previous M1) for $2 + '0.68' + '1.80'$ A1 for 4.48 or 448p (accept equivalent methods in pence)
18	$3 \times 2 + 5 \times -4$	-14	2	M1 for $3 \times 2 + 5 \times -4$ oe or 6 and -20 seen A1 for -14
19	(a) 400×2.30	920	2	M1 for 400×2.30 oe A1 for 920 or 920.00
	(b) $46 \div 2.30$	20	2	M1 for $46 \div 2.30$ oe A1 for 20 or 20.00
20	(a)	28.38461538	2	B2 for 28.3846.... (B1 for 107.01 or 3.77 or 28.38(...) or $28\frac{5}{13}$ oe)
	(b)	30	1	B1ft for 30 or for answer >1sf in (a) rounded to 1 sf

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Question		Working	Answer	Mark	Notes
21	(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
22	(a)		43 25 (19) 87 (36) (42) 35 113 (79) 67 (54) (200)	3	B3 all 6 correct (B2 for 4 or 5 correct) (B1 for 2 or 3 correct)
	(b)		$\frac{79}{200}$	1	B1 for $\frac{79}{200}$ oe
23	(a)		Correct plane	2	B2 for a correct plane defined by showing at least 2 adjacent lines on the plane (B1 for a line of symmetry on one face)
	(b)		Correct elevation 	2	B2 for sketch of trapezium (B1 for trapezium with a rectangle or a parallelogram added at top or side or lines drawn from vertices)

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Question	Working	Answer	Mark	Notes
24	$1.72 \div 2 (= 0.86)$ $7.65 \div 9 (= 0.85)$	Large box with reasons	3	M1 for $1.72 \div 2 (= 0.86)$ M1 for $7.65 \div 9 (= 0.85)$ A1 for large box or 9kg with correct calculations OR M1 for $2 \div 1.72 (= 1.162\dots)$ M1 for $9 \div 7.65 (= 1.176\dots)$ A1 for large box or 9kg with correct calculations OR M2 for $7.65 \times 2 \div 9 (=1.70)$ or for $1.72 \div 2 \times 9 (=7.74)$ A1 for large box or 9kg with correct calculations OR M1 for $1.72 \times 9 (= 15.48)$ M1 for $7.65 \times 2 (=15.30)$ A1 for large box or 9kg with correct calculations (Accept equivalent methods for comparison)
25		Rotation 180° Centre (0, 1)	3	B1 for 'rotation' B1 for ' 180° ' or 'half turn' B1 for (0, 1) (B0 for any combination of transformations) OR B1 for 'enlargement' B1 for scale factor -1 B1 for (0,1)

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Question	Working	Answer	Mark	Notes
26	$360 + \frac{17.5}{100} \times 360$	423	3	M1 for $\frac{17.5}{100} \times 360$ oe or 10% + 5% + 2.5% oe (condone one calculation error) or 63 or 36, 18 and 9 seen M1 (dep) for 360 + '63' A1 for 423 OR M2 for 1.175×360 oe A1 for 423
27	(a)	Negative	1	B1 cao
	(b)	117 – 123	2	M1 for a line of best fit drawn between (9,130) and (9, 140) and between (13,100) and (13,110) inclusive A1 for 117 – 123
28	$180 \div 9 (=20)$ 20×4	80	3	M2 for $(180 \div (2+3+4)) \times 4$ or for 40, 60, 80 seen A1 cao (M1 for $180 \div (2+3+4)$ or 20 seen)

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Question	Working	Answer	Mark	Notes
29	$3 \rightarrow 33$ $4 \rightarrow 72$ $3.1 \rightarrow 35.9(91)$ $3.2 \rightarrow 39.1(68)$ $3.3 \rightarrow 42.5(37)$ $3.4 \rightarrow 46.1(04)$ $3.5 \rightarrow 49.8(75)$ $3.6 \rightarrow 53.8(56)$ $3.7 \rightarrow 58.0(53)$ $3.8 \rightarrow 62.4(72)$ $3.9 \rightarrow 67.1(19)$ $3.75 \rightarrow 60.2(34375)$	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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