## November 2009

1380	1380/2F						
Qu	estion	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		

1380	/2F				
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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 <i>y</i> -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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	estion	Working	Answer	Mark	Notes
9	(a)		100	1	B1 cao
	(b)		7	1	B1 for 7 or $-7$ (accept $\pm 7$ )
	(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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Qu	estion	Working	Answer	Mark	Notes
13	(a)		7 <i>p</i>	1	B1 for 7 <i>p</i> , accept $7 \times p$ , $p7$ , $p \times 7$
	(b)		5ef	1	B1 for 5 <i>ef</i> , accept <i>e f</i> 5, 5 <i>f e</i> , <i>e</i> 5 <i>f</i> , etc.
	(c)		$3y^2$	1	B1 for $3y^2$ or $y^2 3$
14	(a)(i)		115	2	B1 cao
	(ii)		reason		B1 for 'angles on a straight line add to 180'
	(b)(i)		50	3	M1 for 180 – (65 + 65) oe or 115 – 65 A1 cao
	(ii)		reason		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)		19.2	1	B1 for answer in range 19 to 19.9 inclusive
	(b)		6.2	1	B1 for answer in range 6 to 6.4 inclusive
	(c)		160	2	M1 for 10 × (16 to 17) or 5 × (32 to 33) oe A1 for 150 – 175 SC B1 for 200
16	(a)	$84 \div 2 = 42$	42	1	B1 cao
	(b)		$\frac{1}{6}$	2	M1 for $\frac{60}{360}$ or equivalent fraction A1 cao

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17		$2.40 \div 4 \times 3 (= 1.80)$ $2 + 2 \times 0.34 + 1.80$	4.48	4	M1 for $2 \times 0.34$ 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÷2.30	20	2	M1 for 46 ÷ 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

1380	/2F				
Que	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)		<b>43 25</b> (19) <b>87</b> (36) (42) <b>35 113</b> (79) <b>67</b> (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	<ul><li>B2 for a correct plane defined by showing at least 2 adjacent lines on the plane</li><li>(B1 for a line of symmetry on one face)</li></ul>
	(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)

1380/2F				
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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 $2 \div 1.72 (= 1.162)$ M1 for $9 \div 7.65 (= 1.176)$ 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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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 $1.175 \times 360$ 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÷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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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			