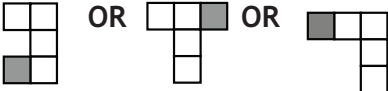



2009 June

1380/2F					
Question	Working	Answer	Mark	Notes	
1	(a)		3.50	1	B1 for 3.50 cao
	(b)		3.05	1	B1 3.05 cao
	(c)		3510	1	B1 for 3510 or 3510.00
2	(a)		right angle marked	1	B1 for the right angle marked with square or R
	(b)		acute angle marked	1	B1 for either (or both) of the acute angles marked
	(c)		kite drawn	1	B1 for a kite drawn (accept square or rhombus or arrowhead)
3	(a)		circle drawn	1	B1 for a circle drawn within guidelines (see overlay)
	(b)		diameter drawn	1	B1 for line through C and touching circle at both ends
4	(a)	$5.85 + 4.90$	10.75	1	B1 for 10.75 cao
	(b)	$60.55 \div 8.65$	7	2	M1 for $60.55 \div 8.65$ or $8.65 \times 7 = 60.55$ or for at least 4 repeated additions or subtractions of 8.65 A1 for 7 cao
	(c)	$8.65 + (4.90 + 4.90)$ $20 - 18.45$	1.55	3	M1 for $8.65 + (4.90 + 4.90)$ M1 (dep) for $20 - '18.45'$ A1 for 1.55 cao SC: award B1 for sight of 18.45 or 6.45 or 10.20 award B2 for 155

1380/2F					
Question		Working	Answer	Mark	Notes
5	(a)		6	1	B1 for 6 cao
	(b)		diagram	1	B1 for correct diagram (4 vertical sticks and 8 horizontal sticks)
	(c)		12, 15	2	B2 for 12 and 15 (B1 for either 12 or 15 or '12'+3)
	(d)		reason	1	B1 eg for '100 multiplied by 3' or '100 × 3' or '× 3' or 3n (but not 3n + a number) or 'keep adding 3' oe, as long as "3" is mentioned.
6	(a)		Bars at 8 and 5	2	B1 for bar of height 8 (above orange) B1 for bar of height 5 (above green)
	(b)		6	1	B1 for 6 cao
	(c)		yellow	1	B1 ft for yellow or ft from their diagram
	(d)	6 + 10 + 8 + 5	29	1	B1 correct answer or ft by adding the heights of the columns on the graph
7	(i)		cone	1	B1 for cone or alternative spellings only that sound like "cone".
	(ii)		cylinder	1	B1 for cylinder or alternative spellings only that sound like "cylinder". Accept circular based prism.

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Question		Working	Answer	Mark	Notes
8	(a)	$\frac{9}{12}$	$\frac{3}{4}$	2	B2 for $\frac{3}{4}$ cao (B1 for $\frac{9}{12}$ seen)
	(b)		shading	1	B1 for 6 squares (only) shaded
	(c)		0.3	1	B1 for 0.3 oe
	(d)		$\frac{39}{100}$	1	B1 for $\frac{39}{100}$ oe as a fraction
9	(a)		6.4	1	B1 for 6.2 – 6.6 inclusive; accept 62-66 with mm stated.
	(b)		Midpoint marked	1	B1 for midpoint marked at 3 – 3.4 inclusive
10	(a)		7, 4, 2, 1, 2	2	M1 for at least one correct frequency or tally A1 for 7, 4, 2, 1, 2 cao (B2 for correct frequencies without the use of tallies)
	(b)		2	1	B1 for 2 or ft values in table NB: B0 if the 7 is given with the 2
	(c)	$6 - 2 =$	4	2	M1 for identifying 6 and 2, eg 6-2, as long as 6 and 2 are not identified with any incorrect operation A1 cao

1380/2F					
Question		Working	Answer	Mark	Notes
11	(a)	$6 \times 3 + 4$	22	2	M1 for 6×3 or for ' 6×3 ' + 4 or 18 seen A1 for 22, accept 22.00 or 22.0
	(b)	$52 - 4 = 48$ $48 \div 6 =$	8	3	M1 for $52 - 4$ or 48 seen M1 (dep) for ' $52 - 4$ ' $\div 6$ or $48 \div 6$ A1 for 8 cao Alternative method: M2 for a systematic attempt using $6 \times d + 4$ at least twice with at least one d greater than 5 with correct answers A1 for 8 cao
12	(a)		33	1	B1 for 33 cao
	(b)		180	1	B1 for 180 cao
	(c)		110 marked	1	B1 for 110 marked cao
	(d)		0.27 marked	1	B1 for 0.27 marked cao
13	(i)		12	1	B1 for 12 cao
	(ii)		3	1	B1 for 3 cao
	(iii)		3 or 11	1	B1 for 3 and/or 11 cao
14	(a)		Shading	1	B1 for one square shaded to get one of 
	(b)		Shading	1	B1 for one square shaded to get 

1380/2F				
Question	Working	Answer	Mark	Notes
15	$\frac{1}{6} \times 36 = 6$ $\frac{2}{9} \times 36 = 8$ $36 - (8 + 6)$	22	3	<p>M1 for $\frac{1}{6} \times 36$ or $36 \div 6$; $\frac{2}{9} \times 36$ or $36 \div 9 \times 2$ or 8 seen or 14 seen or $\frac{1}{6} + \frac{2}{9}$ or $\frac{7}{18}$ oe or 6 seen as long as not with incorrect working.</p> <p>M1 (dep) for $36 - '(8 + 6)'$ or $36 - \left(\frac{2}{9} + \frac{1}{6}\right) \times 36$ or $\left(1 - \frac{1}{6} + \frac{2}{9}\right) \times 36$</p> <p>A1 for 22 cao</p> <p>SC B2 for $\frac{22}{36}$ oe fraction</p>
16	$10/72 \times 360 = 50$ perch $23/72 \times 360 = 115$ bream $39/72 \times 360 = 195$ carp	50, 115, 195	4	<p>M1 for evidence of method for at least one angle (could be implied by one correct angle on pie chart or in the table)</p> <p>A2 all three angles drawn $\pm 2^\circ$ tolerance, any order (A1 at least one angle correctly drawn $\pm 2^\circ$, or all three angles in the table)</p> <p>B1 names of fish as labels (dep on at least one angle drawn correctly, and exactly three sectors; initials will do)</p> <p>NB: Ignore table if pie chart provides marks</p>
17		87.75	2	<p>M1 for $3 \times 4.5 \times 6.5$ seen or implied eg from answer of 87.7 or 87.8 or 88 (with no other working shown)</p> <p>A1 for 87.75 cao</p>

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Question		Working	Answer	Mark	Notes
18	(a)	$1.8 \times -8 + 32$	17.6	2	M1 for 1.8×-8 or -14.4 or $\frac{-72}{5}$ seen or $32 - '1.8 \times 8'$ or $1.8 \times -8 + 32$ seen A1 for 17.6 or $\frac{88}{5}$ or 17.60 oe
	(b)	$68 = 1.8C + 32$ $1.8C = 68 - 32$ $C = 36 \div 1.8$	20	2	M1 for $68 - 32$ or 36 or $68 = 1.8C + 32$ seen; condone replacement of C by another letter. A1 for 20 cao NB Trial and improvement score 0 or 2
19			construction	2	M1 for a pair of arcs drawn from the same centre on 2 lines at same distance from meeting point; or a single arc crossing both lines; using an arc with a radius which is the length of the shorter line will imply an intersection with the end of that line. ($\pm 2\text{mm}$) A1 for bisector ($\pm 2^\circ$) and correct arcs SC: B1 for bisector ($\pm 2^\circ$) with no arcs, or incorrect arcs if M0 awarded. Accept bisectors that are dashed or dotted.
20	(a)	325×1.68	546	2	M1 for 325×1.68 seen or digits 546 A1 for 546, accept 546.00, 546.0
	(b)	$117 \div 1.5$	78	2	M1 for $117 \div 1.5$ seen or digits 78 A1 for 78, accept 78.00, 78.0

1380/2F					
Question		Working	Answer	Mark	Notes
21	(a)		(65, 100), (80, 110) plotted	1	B1 for plotting both points (65, 100), (80, 110) correctly (tolerance one square); ignore any additional plots given.
	(b)		positive (correlation)	1	B1 for positive (correlation) or length increases with height oe
	(c)		105 - 110	2	M1 for a single line segment with positive gradient that could be used as a line of best fit or a vertical line from 76 A1 for given answer in the range 105 – 110
22	(a)		Correct shape	2	B2 for correct shape; any orientation. (B1 for any two sides correct or all correct for scale factor other than 1 or 2), tolerance to within half square
	(b)		Reflection in line $x = 0$	2	B1 for reflection, reflect, reflected. B1 for line $x = 0$ or y -axis NB: more than one transformation should be awarded 0 marks.
23	(a)		$4m$	1	B1 for $4m$ oe
	(b)		$4pq$	1	B1 for $4pq$ or $4qp$ or $p4q$ oe
	(c)	$5 \times 3x - 5 \times 2$	$15x - 10$	1	B1 for $15x - 10$ cao
	(d)	$3y \times y + 3y \times 4$	$3y^2 + 12y$	2	M1 for $3y \times y + 3y \times 4$ or $3y^2 + a$ or $3y^2 + ay$ or $b + 12y$ or $by^2 + 12y$ where a, b are integers, and can be zero A1 for $3y^2 + 12y$ or $3 \times y^2 + 12 \times y$

1380/2F					
Question	Working	Answer	Mark	Notes	
24	(a)	$18 \div 6 : 12 \div 6$	3 : 2	2	M1 for 18 : 12 or 12 : 18 or 1.5:1 or 1:0.67 oe or correct ratio reversed eg 2:3 A1 for 3 : 2 or 1 : 0.6 ... [recurring]
	(b)	$5 + 1 = 6$ $54 \div 6 = 9$ 5×9	45	2	M1 for $\frac{5}{5+1} \times 54$ or $\frac{1}{5+1} \times 54$ or $54 \div '5+1'$ or 54×5 or 270 or 9 : 45 or 9 seen, as long as it is not associated with incorrect working. A1 for 45 cao
25		$15 \times 3 = 45$ 15×3.5 $25 \times 9 = 225$ 25×9.5 $20 \times 15 = 300$ 20×15.5 $12 \times 21 = 252$ 12×21.5 $8 \times 27 = 216$ 8×27.5 $1038 \div 80 =$ $1078 \div 80 =$	12.97 - 13.48	4	M1 for fx consistently within interval including ends (allow 1 error) M1 (dep) consistently using appropriate midpoints M1 (dep on first M) for $\Sigma fx \div \Sigma f$ A1 for 12.97 - 13.48
26	(a)	t^{6+2}	t^8	1	B1 for t^8 or for t^{6+2}
	(b)	m^{8-3}	m^5	1	B1 for m^5 or for m^{8-3}
27	(a)	$4.6 + 3.85 = 8.45$ $3.2^2 - 6.51 = 3.73$ $8.45 \div 3.73 =$	2.26541555	2	M1 for $\frac{169}{20}$ or $\frac{256}{25}$ or $\frac{373}{100}$ or 3.73 or 10.24 or 8.45 seen A1 for 2.265(41555); accept $\frac{845}{373}$
	(b)		2	1	B1 ft for 2 or follow through their answer to part (a) NB: 2.0 gets B0

1380/2F				
Question	Working	Answer	Mark	Notes
28	$(0.5 \times 3.14... \times 8) + 8$	20.56 - 20.58	3	M2 for $(0.5 \times \pi \times 8)$ or $\pi \times 4$ or $(\pi \times 8 + 8)$ or $(0.5 \times \pi \times 8 + 8)$ oe (M1 for $\pi \times 8$ or $2\pi \times 4$; for a value 25.1-25.2 inclusive unless seen with incorrect working eg πr^2) A1 for 20.56 – 20.58 (SC: B2 if M0 scored for 12.56 - 12.58)