

GCSE Mathematics Unit 2: Foundation Tier	Marks	Comments
6.(a) Correct three-digit number shown. (i.e. sum of digits = 9) Correct answer for their three-digit number $\div 9$	B1 B1	The numbers should have the digits 1, 3, 5 or 2, 3, 4. F.T. their three-digit number correct to the nearest whole number or 1 or more decimal places. e.g. sight of $412 \div 9 = 45.7$ or 45.8 or 46 gains B0B1. SC1 for a correct evaluation if a three-digit multiple of 9 is used with a repeated digit. e.g. $441 \div 9 = 49$ gains SC1.
(b) Dylan is 18 Lois is 6	B2 4	B1 for 'their Dylan' = 'their Lois' + 12. B1 for 'their Dylan' = $3 \times$ 'their Lois'.
7.(a) (i) $(x=) 3$ (ii) $(x=) 4$ (b) $6 - 4 + 5$ $= 7$ (c) $(£)8n$	B1 B1 M1 A1 B1 5	 Sight of 6, 4 and 5. C.A.O.
8.(a) $(a =) 180 - 90 - 38$ or equivalent. $= 52^{(o)}$ (b) $(b =) 360 - 101 - 154$ or equivalent. $= 105^{(o)}$	M1 A1 M1 A1 4	
9. $\frac{10}{0.68}$ or equivalent. 14 (key rings) (Change =) $(£)10 - 14 \times (£)0.68$ or equivalent $= £0.48$ or 48p Organisation and communication Accuracy of writing	M1 A1 M1 A1 OC1 W1 6	Allow M1 for repeated addition if aiming for £10 C.A.O. $14 \cdot 7 \dots$ implies M1A0 F.T. 'their whole number of key-rings' Units must be given. Allow £0.48p
10. $360 - (46 + 117 + 34)$ $= 163^{(o)}$ $(x =) 17^{(o)}$	M1 A1 B1 3	F.T. $180 -$ 'their 163'.
11.(a) -9 (b) 12 (c) $3(n - 7)$	B1 B1 B1 3	
12. (Original mean =) 13 (New total =) 5×14 $= 70$ New number = 18	B1 M1 A1 B1 4	F.T. $5 \times$ 'their 13 + 1'. F.T. 'their <u>derived</u> new total' - 'their original total'.
13. $4 \times 4 \times 4$ $64 \text{ (cm}^3\text{)}$ $64 / (8 \times 4)$ or $32h=64$ 2 (cm)	M1 A1 M1 A1 4	<i>Alternative method:</i> 4×4 M1 $16 \text{ (cm}^2\text{)}$ A1 $16/8$ M1 2 (cm) A1

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14.	More girls in class B than in class A. Equal number of girls and boys in class B. Ratio of Girls : Boys = 3 : 1 in class A.	B1 B1 B1 3	
15.	$x + 2x + 3x = 180$ $x = 30$ Three angles are $30(^{\circ})$, $60(^{\circ})$, $90(^{\circ})$	M1 A1 A1 3	<i>SC1 for the answers of $30(^{\circ})$, $60(^{\circ})$ and $90(^{\circ})$ without forming an equation</i> <i>SC1 for the answers of $60(^{\circ})$, $120(^{\circ})$ and $180(^{\circ})$ from equating to 360</i>
16.(a)	All 13 numbers placed correctly and no extra.	B4	B3 for 10,11 or 12 correct OR all correct but omission of numbers outside $A \cup B$. B2 for 8 or 9 correct. B1 for 6 or 7 correct. <i>Any duplicates are marked as incorrect.</i>
(b)	$\frac{4}{13}$	B2 6	F.T. 'their diagram'. B1 for a numerator of 4 OR a denominator of 13 in a fraction less than 1.
17.	$4 \cdot 38$	B2 2	B1 for $4 \cdot 37(7 \dots)$
18.	<u>Clockwise rotation of 90° about the origin.</u>	B3 3	For all four components. B2 for any three, B1 for any two. (Penalise ' $\frac{1}{4}$ turn' –1 only.)

ASSESSMENT GRIDS

GCSE Mathematics**Unit 1: Higher tier**

			Assessment Objectives			Common (Interm)	OCW
Qu.	Topic	Max mark	AO1	AO2	AO3		
1	Mutually exclusive and independent events	6	2	4		6 (Q10)	
2	Quadratic graph	7	4		3	7 (Q11)	
3	Construction of 30°, regular polygon and translation	7	7			7 (Q12)	
4	Money (Ratio and %)	4	4			4 (Q13)	
5	Number	3	3			3 (Q14)	
6	Relative frequency	4	1	1	2	4 (Q15)	
7	Standard form	4	4			4 (Q16)	
8	n th term	2			2	2 (Q17)	
9	Enlargement	3	3				
10	Inverse proportion	5	5				
11	Forming a quadratic and solving	9		6	3		*
12	Algebra	2	2				
13	Recurring decimal, surd and indices	7	7				
14	Transformation of functions	6	5		1		
15	Alternate segment	4			4		
16	Probability	7			7		
Totals		80	47	11	22	37	