

Q1. (2019)

8	Alternative method 1		
	Subtracts 17, 34, 51 or 68 from 84 or subtracts any multiple of 3 from 84 or subtracts any three equal positive whole numbers from 84	M1	implied by 67, 50, 33 or 16 or implied by a multiple of 17 plus three positive whole numbers that sum to 84 or implied by a multiple of 3 and another positive whole number that sum to 84 or implied by four positive whole numbers, three of which are equal, that sum to 84
	Subtracts 17, 34, 51 or 68 from 84 and then divides by 3 or subtracts any multiple of 3 from 84 and then divides by 17 or subtracts any three equal positive whole numbers from 84 and then divides by 17	M1dep	implied by 22.3(...), 16.6(...) or 16.7, 11 or 5.3(...)
	51, 11, 11, 11	A1	any order
	Alternative method 2		
	A correctly evaluated trial using addition of a multiple of 17 and three equal positive whole numbers or addition of a multiple of 17 and a multiple of 3	M1	
	A different correctly evaluated trial using addition of a multiple of 17 and three equal positive whole numbers or addition of a multiple of 17 and a multiple of 3	M1dep	
	51, 11, 11, 11	A1	any order

8 cont	Additional Guidance	
	Answer of 51 and 11 with indication of three 11s in working	M1M1A1
	Answer line blank with 51 and three 11s indicated as their four numbers	M1M1A1
	Answer line blank with 51 and three 11s in working	M1M1A0
	Answer of 51 and 11 with no indication of three 11s in working	M1M1A0
	34, 20, 20, 10 implies first method mark as a multiple of 17 plus three positive whole numbers that sum to 84	M1M0

Q2. (2019)

9	116(.00)	B4	B3 $3 \times 34.5(0) + 12.5(0)$ or 118.25 or 119 or 122 or 121.25	
			B2 $58.75 + 34.5(0) + 2 \times 12.5(0)$ or $2 \times 34.5(0) + 4 \times 12.5(0)$ or $34.5(0) + 7 \times 12.5(0)$ or $58.75 + 5 \times 12.5(0)$	
			B1 $10 \times 12.5(0)$ or 125 or 2×58.75 or $117.5(0)$ or $34.5(0) + 3$ or $11.5(0)$ or $58.75 + 5$ or 11.75	
			Additional Guidance	
			116(.00) identified as answer	B4
			116 in working with different answer	B3
	116.0		B3	
	Answer of 117.5(0) with 122 in working		B3	

Q3. (2019)

15	$\frac{1}{3} \neq 30\%$	B1	
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Q4. (2019)

24	6 as density for J or K	B1	
	13 as volume for K or 78 ÷ their 6 as volume for K	B1ft	ft their 6
	g/cm ³ as units for densities of J and K and cm ³ as unit for volume of K	B1	allow g cm ⁻³
	Additional Guidance		
	Mark table first		
	Full marks are only awarded for a fully correct table with no errors or omissions		
	13 cm ³ as a volume for K, 0.006 kg/cm ³ for both densities		B1B1B1
	Condone g per cm ³ , gpc ³ or g per cubic centimetre as units for density		

Q5. (2020)

Q	Answer	Mark	Comments
6	Alternative method 1		
	267.5(0) – 125 or 142.5(0)	M1	oe
	$\frac{\text{their } 142.5(0)}{7.5(0)}$	M1dep	oe
	19	A1	
	Alternative method 2		
	$\frac{267.5(0)}{7.5(0)}$ or 35. $\dot{6}$	M1	oe
	their 35. $\dot{6}$ – $\frac{125}{7.5(0)}$	M1dep	oe
	19	A1	
	Additional Guidance		
	Award M1 or M2 work even if not subsequently used		
	Build up methods to 142.5(0) score first M1 only unless fully correct		
	Build up methods from 125 score M0 unless fully correct		
	Accept 35.66... or 35.67 for 35. $\dot{6}$		

Q6. (2020)

14 Here are ticket prices for a theme park.

Single tickets	
Adult £48	Child £26
Special offer tickets	
1 adult and 2 children	£82
2 adults and 2 children	£120

(A)

Q	Answer	Mark	Comments
14(a)	$3 \times 48 + 4 \times 26$ or $144 + 104$ or 248	M1	oe
	Any combination of ticket prices for 3 adults and 4 children involving at least one special offer	M1	oe eg $120 + 82$ or 202 or $2 \times 82 + 48$ or $164 + 48$ or 212 or $120 + 48 + 2 \times 26$ or $120 + 48 + 52$ or 220 or $82 + 2 \times 48 + 2 \times 26$ or $82 + 96 + 52$ or 230
	their 248 – their combination total for 3 adults and 4 children	M1dep	oe eg $248 - 120 - 82$ if fully correct or $248 - 212$ or 36 or $248 - 220$ or 28 or $248 - 230$ or 18 dep on second M mark
	46	A1	
	Additional Guidance		
	Award M1, M2 or M3 work even if not subsequently used		
	If no correct working is shown for the first M mark then their 248 must be a value of 148 or greater		

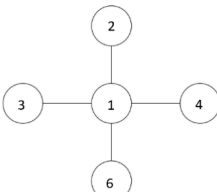
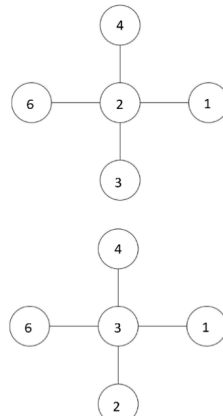
(B)

Q	Answer	Mark	Comments
14(b)	$48 \times \frac{1}{4}$ or 12 or $5 \times 48 \times \frac{1}{4}$ or 60	M1	oe implied by $48 \times \left(1 - \frac{1}{4}\right)$ or 36
	$5 \times 48 - 5 \times 48 \times \frac{1}{4}$ or $240 - 60$	M1dep	oe eg $5 \times 48 \times \frac{3}{4}$ or $240 \times \frac{3}{4}$ or 5×36
	180	A1	
	Additional Guidance		
	180 and $240 - 180 = 60$		M1M1A0

Q7. (2021)

Q	Answer	Mark	Comments																								
5	2827.18	B1																									
	2778.21	B1ft	ft their 2827.18 – 48.97																								
	1135.72	B1ft	ft their 2778.21 – 1642.49																								
	Additional Guidance																										
				B1B1B1																							
	<table><tr><th>Date</th><th>Description</th><th>Credit (£)</th><th>Debit (£)</th><th>Balance (£)</th></tr><tr><td>01/05/2020</td><td>Starting balance</td><td></td><td></td><td>670.43</td></tr><tr><td>08/05/2020</td><td>Salary</td><td>2156.75</td><td></td><td>2827.18</td></tr><tr><td>11/05/2020</td><td>Water bill</td><td></td><td>48.97</td><td>2778.21</td></tr><tr><td>18/05/2020</td><td>Mortgage payment</td><td></td><td>1135.72</td><td>1642.49</td></tr></table>	Date	Description		Credit (£)	Debit (£)	Balance (£)	01/05/2020	Starting balance			670.43	08/05/2020	Salary	2156.75		2827.18	11/05/2020	Water bill		48.97	2778.21	18/05/2020	Mortgage payment		1135.72	1642.49
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All three correct B1 values must be in the correct place for B1B1B1																											
2827.18 and 2778.21 and 1135.72 but not all of them in the correct place can only score 2 marks																											
Condone £ and p on values																											
Condone incorrect money notation for ft eg 2827.27 – 48.97 = 2778.3			B0B1ft																								

Q8. (2021)

Q	Answer	Mark	Comments	
6		B2	2 and 6 can be in either order 3 and 4 can be in either order B1 the horizontal line multiplies to 12 or the vertical line multiplies to 12 or the sum of the vertical line is 1 more than the sum of the horizontal line or the sum of the horizontal line is 1 more than the sum of the vertical line	
	Additional Guidance			
	Must use 1, 2, 3, 4 and 6 each once and all circles must be completed			
	Examples of B1			
		B1		
	Use of a repeated number	B0		

Q9. (2022)

Q	Answer	Mark	Comments
6	$8 \times (0.)60$ or 480 or $4.8(0)$	M1	oe
	$10 - \text{their } 4.8(0)$ or $5.2(0)$ or $1000 - \text{their } 480$ or 520	M1	oe $0.6(0) \leq \text{their } 4.8(0) < 10$ $60 \leq \text{their } 480 < 1000$ $5.2(0)$ or 520 implies M2
	26	A1	
	Additional Guidance		
	Up to M2 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts		
	$60 \div 8 = 7.50$ then $10 - 7.50$		M0M1A0

Q10. (2022)

Q	Answer	Mark	Comments
26	$\begin{pmatrix} 5 \\ 23 \end{pmatrix}$	B1	
	Additional Guidance		
	Condone $\begin{pmatrix} 5 \\ 23 \end{pmatrix}$		B1