Q1. (2017)

5(b)	26.5	B1ft	Correct or ft provided their answer to (a) is given to more than 1 dp
	Additional Guidance		
	8.88326612 in (a) and 8.9 in (b)	B1ft	
	8.88326612 in (a) and 26.5 in (b)	B1	
	26.50	B0	

Q2. (2018)

14(b)	10 or 10^2 or 100 or 30	M1	
	10 × 10 × 30 or 10^2 × 30 or 100 × 30	M1dep	
	10 × 10 × 30 = 3000 and Sensible or 10^2 × 30 = 3000 and Sensible or 100 × 30 = 3000 and Sensible	A1ft	ft their answer to part (a) for the decision
	Additional Guidance		
	3000 (and Sensible) with no working	M0M0A0	
	Their decision must be based on part (a) unless new calculation shown in part (b)		
	10^2 × 30 = 3000 and 10^2 × 29 = 2900 and Sensible	M1M1A1	
	10^2 × 30 and 10^2 × 29 and Sensible	M1M1A0	
	10^2 × 29 = 2900 and Sensible	M1M0A0	
	ft should be Sensible if their part (a) is 3000 to 1sf or vice versa eg (a) 295.02745 (b) 10 × 10 × 30 = 3000 and Not sensible	(B0)M1M1A1ft	

Q3. (2019)

23(b)	**Alternative method 1**		
	380 ÷ 2 or (380 + 1) ÷ 2 or 381 ÷ 2 or 190 or 190.5 or 191	M1	oe eg $\frac{59+158+106+45+12}{2}$ may be seen by the table
	$2 < t \leqslant 4$ with 190 or 190.5 or 191 seen	A1	
	Alternative method 2		
	$2 < t \leqslant 4$ with 59 + 158 – 106 – 45 – 12 = 54 seen	B2	oe calculation eg 217 – 163 = 54 B1 59 + 158 – 106 – 45 – 12 = 54 oe
	Additional Guidance		
	$2 < t \leqslant 4$ with 190 or 190.5 or 191 not seen	M0A0	
	Condone 2 – 4 in both or one of the spaces on answer line if 190 or 190.5 or 191 seen	M1A1	
	Condone missing brackets if recovered		
	Alt 2 54 with calculation not seen	B0	
	Alt 2 $2 < t \leqslant 4$ and 54 with calculation not seen	B0	

Q4. (2022)

Q	Answer	Mark	Comments
22	**Alternative method 1**		
	90×5 or 450 or $\frac{72+83+88+97+x}{5}$ or $\frac{340+x}{5}$	M1	oe any letter or symbol
	$90 \times 5 - 72 - 83 - 88 - 97$ or $90 \times 5 - 340$ or $72 + 83 + 88 + 97 + x = 90 \times 5$ or $340 + x = 90 \times 5$	M1dep	oe any letter or symbol equations must have fraction eliminated
	110	A1	
	Alternative method 2		
	Trial of any value with mean correctly evaluated	M1	also allow if given to the next or previous integer eg1 trial of 100 $\frac{72+83+88+97+100}{5} = 88$ eg2 trial of 78 $\frac{340+78}{5} = 83$ (or 84 or 83.6) ignore trials with mean not evaluated or incorrectly evaluated
	Trial of 110 with mean evaluated to 90	M1dep	eg $\frac{72+83+88+97+110}{5} = 90$ this mark implies M1M1
	110	A1	

22 cont	**Alternative method 3**		
	$\frac{72+83+88+97}{4}$ or $\frac{340}{4}$ or 85	M1	oe
	their $85 + 5 \times (90 - \text{their } 85)$ or their $85 + 5 \times 5$ or their $85 + 25$	M1dep	oe $90 + 4 \times (90 - \text{their } 85)$
	110	A1	
	Alternative method 4		
	$\frac{72+83+88+97}{5}$ or $\frac{340}{5}$ or 68	M1	oe
	$5 \times (90 - \text{their } 68)$ or 5×22	M1dep	oe
	110	A1	
	Alternative method 5		
	$(90 - 72) + (90 - 83) + (90 - 88) + (90 - 97)$ or $18 + 7 + 2 - 7$ or 20	M1	oe eg $(72 - 90) + (83 - 90) + (88 - 90) + (97 - 90)$ or $90 \times 4 - 72 - 83 - 88 - 97$ or $-18 - 7 - 2 + 7$ or -20
	90 + their 20	M1dep	oe eg 90 – their -20
	110	A1	
	Additional Guidance		
	M1 may be awarded for correct work with no, or incorrect answer, even if this is seen amongst multiple attempts		
	Embedded 110 scores M1M1A0 using Alt 2 (even if a different answer is given)		
	Condone eg Alt 3 $72 + 83 + 88 + 97 \div 4$ No further marks unless recovered		M1
	Alt 5 1st M1 Subtractions must be consistent		
	Condone 110% for 110		