Question Number	Scheme	Marks	Notes
1a	M(C)	M1	Or equivalent to form an equation in *x* only.
			$\text{vert}: 240 = T_C + 90$ $\text{M}(A): 2T_C + 90(8-x) = 240\times 4$ $\text{M}(D): (6-x)T_C = 240(4-x)$ $\text{M}(B): 6T_C + 90x = 240\times 4$ $\text{M}(G): 2T_C = 90(4-x)$ with T_C eliminated to give an equation in *x* only.
	$240\times 2 = (6-x)\times 90$	A1	Correct unsimplified equation in *x* only.
	$x = \frac{2}{3}$ *	A1*	Obtain given answer from correct working, with at least one line of intermediate working, e.g. after $240\times 2 = (6-x)\times 90$, if they use M(C). N.B. Need '*x* ='
		[3]	
1b	M(*D*)	M1	Or equivalent to form an equation in *W* only. M0 if 183 is never used, including use of 182. M0 if 90 or 150 is used. N.B. Use of *Wg* is an A error.
			$\text{vert}: 240 + W = 183 + T_D$ $\text{M}(A): 2\times 183 + T_D \times \frac{22}{3} = 240\times 4$ $\text{M}(C): 2W + T_D \times \frac{16}{3} = 240\times 2$ $\text{M}(B): 6\times 183 + T_D \times \frac{2}{3} = 240\times 4 + 8W$ $\text{M}(G): 2\times 183 = T_D \times \frac{10}{3} + 4W$ with T_D (=81) eliminated to give an equation in *W* only.
	$240\times \frac{10}{3} + W\times \frac{22}{3} = 183\times \frac{16}{3}$	A1 A1	Unsimplified equation in *W* only with at most one error

			Correct unsimplified equation in *W* only
	(*W* =) 24	A1	Cao N.B. Allow decimals (3.33, 7.33 etc) in working.
			N.B. Allow use of $T_C < 183$ OR $T_C \,„\, 183$ for first 3 marks but must have equality for the final A1.
		[4]	
		(7)	