

- 9 A car travelling in a straight line accelerates uniformly from rest to $V \text{ ms}^{-1}$ in $T \text{ s}$. It then slows down uniformly, coming to rest after a further $2T \text{ s}$.

(a) Sketch a velocity-time graph for the car. [2]

The acceleration in the first stage of the motion is 2.5 ms^{-2} and the total distance travelled is 240 m .

(b) Calculate the values of V and T . [4]