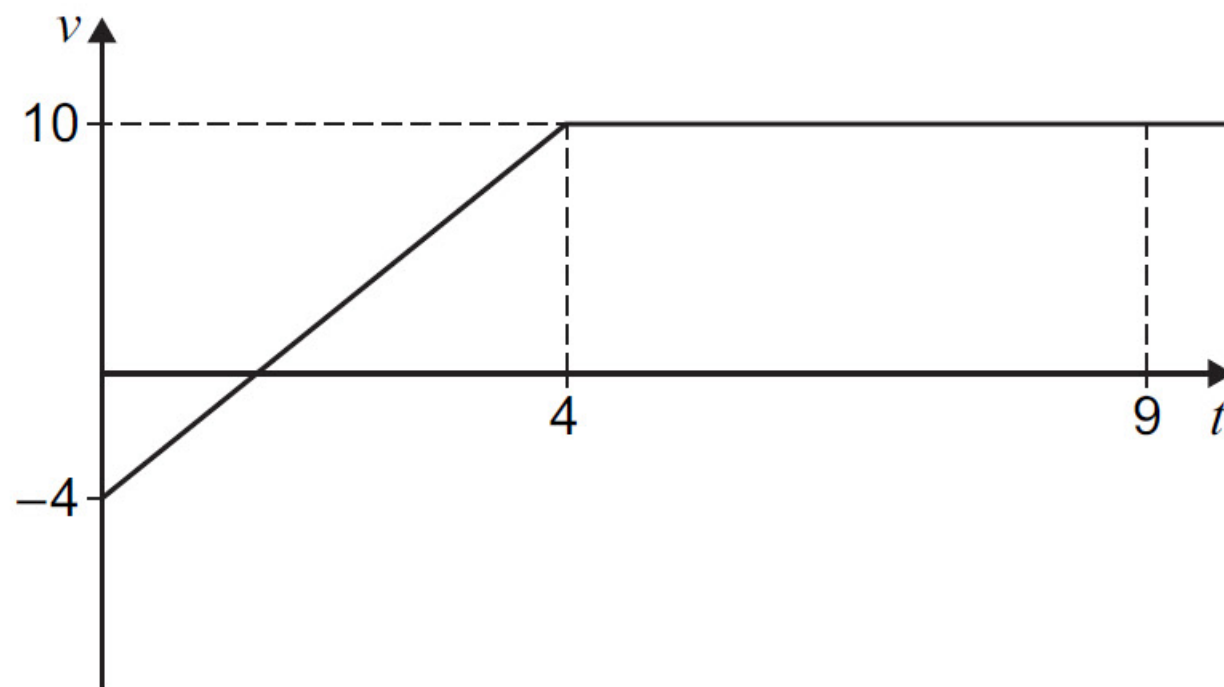


15

A particle is moving in a straight line such that its velocity, $v \text{ m s}^{-1}$, changes with respect to time, t seconds, as shown in the graph below.



15 (a) Show that the acceleration of the particle over the first 4 seconds is 3.5 m s^{-2} [1 mark]

15 (b) The particle is initially at a fixed point P
Show that the displacement of the particle from P , when $t = 9$, is 62 metres. [3 marks]