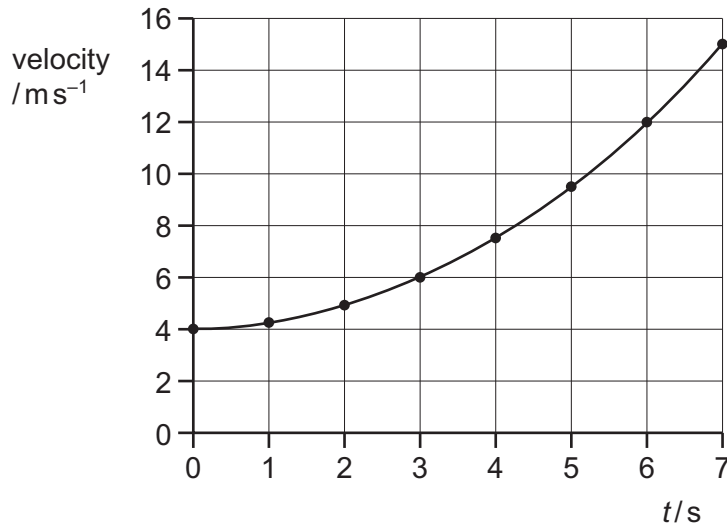**6**   The graph shows the variation with time t of the velocity of a vehicle moving in a straight line.

The vehicle, moving at $4.0\,\text{m s}^{-1}$, begins to accelerate at time $t = 0$.

What is the vehicle's acceleration at time $t = 3.0\,\text{s}$?

A $0.67\,\text{m s}^{-2}$ **B** $1.0\,\text{m s}^{-2}$ **C** $1.3\,\text{m s}^{-2}$ **D** $2.0\,\text{m s}^{-2}$