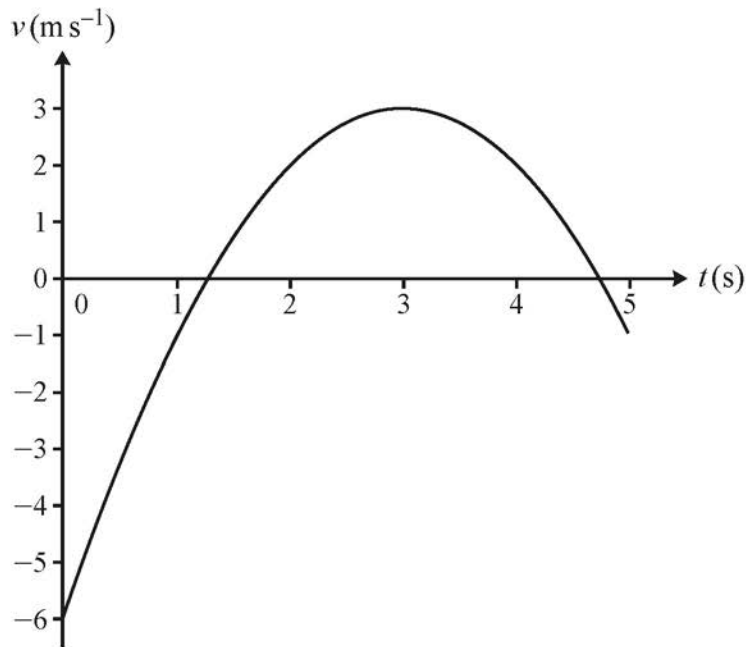


- 3 The velocity-time graph for the motion of a particle is shown below. The velocity  $v \text{ m s}^{-1}$  at time  $t \text{ s}$  is given by  $v = -t^2 + 6t - 6$  where  $0 \leq t \leq 5$ .



- (a) Find the times at which the velocity is  $2 \text{ m s}^{-1}$ . [2]
- (b) Write down the greatest speed of the particle. [1]