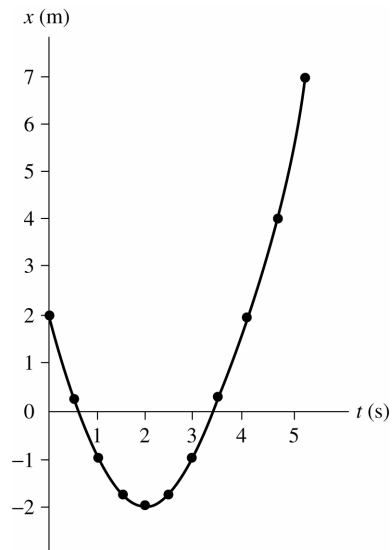


2.25. Solve: (a)



(b) To be completed by student.

(c) $\frac{dx}{dt} = v_x = 2t - 4 \Rightarrow v_x(\text{at } t = 1 \text{ s}) = [2 \text{ m/s}^2(1 \text{ s}) - 4 \text{ m/s}] = -2 \text{ m/s}$

(d) There is a turning point at $t = 2 \text{ s}$.

(e) Using the equation in part (c),

$$v_x = 4 \text{ m/s} = (2t - 4) \text{ m/s} \Rightarrow t = 4$$

Since $x = (t^2 - 4t + 2) \text{ m}$, $x = 2 \text{ m}$.

(f)

