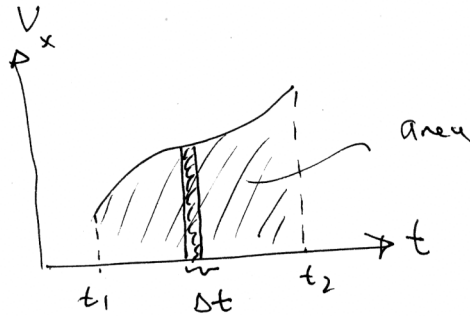


## ch.2 / Conceptual Questions

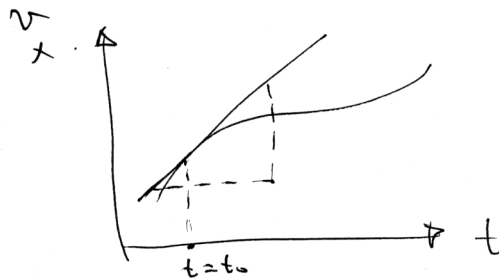
3



The area of small slab is  $= v_x \Delta t = \Delta x$

Thus total area  $= \sum v_x \Delta t = \sum \Delta x = x$   
 $= \text{distance traveled}$

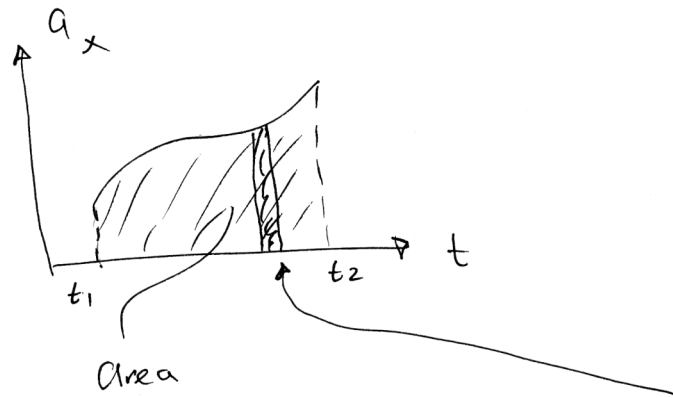
4



$$\text{slope} = \frac{\Delta v}{\Delta t} = \bar{a}$$

Thus slope at  $t = t_0$  give acceleration at the time  $t = t_0$ .

5

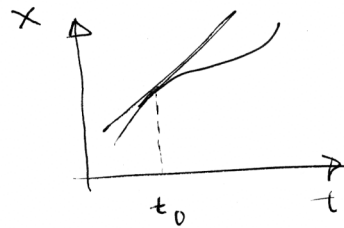


Do the same thing as 3. Choose a small slab.

$$\Delta \text{Area}_x = a_x \Delta t = \Delta v_x$$

Thus The total area measures the change in speed from time  $t_1$  to time  $t_2$ .

6



$$\text{slope} = \frac{\Delta x}{\Delta t} = v_x \text{ at the time } t = t_0.$$