

# Position vs Time Plots

- Gives location at any time.
- Displacement is change in position.
- Slope gives instantaneous velocity.

Position at  $t=3$ ,  $x(3) = 1$

Displacement between  $t=5$  and  $t=1$ .  $\Delta x = -1.0$  m

$$1.0 \text{ m} - 2.0 \text{ m} = -1.0 \text{ m}$$

Average velocity between  $t=5$  and  $t=1$ .  $v = -0.25$  m/s

$$-1 \text{ m} / 4 \text{ s} = -0.25 \text{ m/s}$$

