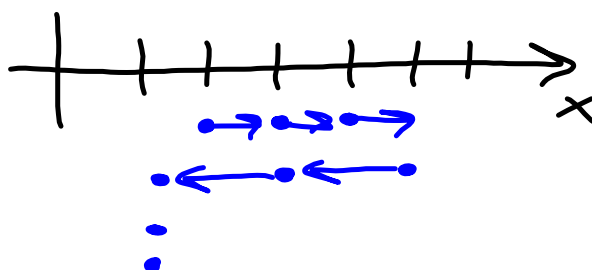
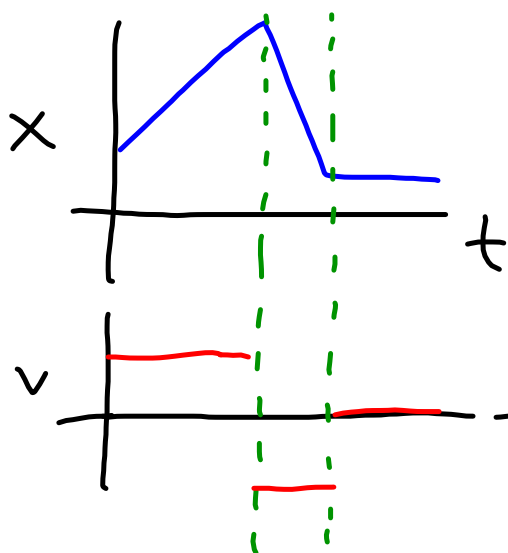
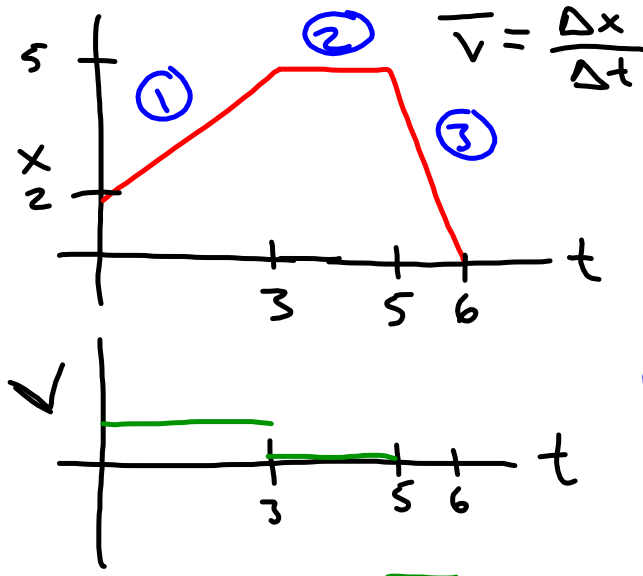


QUIZ - REVIEW





$$\bar{v} = \frac{\Delta x}{\Delta t}$$

find velocity for each section:

$$\textcircled{1} \quad \bar{v} = \frac{5\text{m} - 2\text{m}}{3 - 0} = \frac{3\text{m}}{3\text{s}} = 1\text{m/s}$$

$$\textcircled{2} \quad \bar{v} = 0\text{m/s}$$

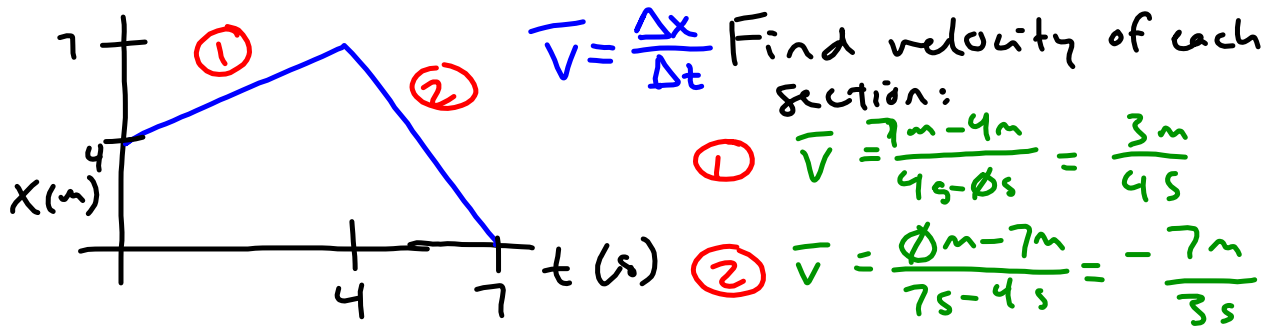
$$\textcircled{3} \quad \bar{v} = \frac{0\text{m} - 5\text{m}}{6\text{s} - 5\text{s}} = -5\text{m/s}$$

find average velocity:

$$\begin{aligned} \bar{v} &= \frac{\Delta x}{\Delta t} \\ &= \frac{0\text{m} - 2\text{m}}{6\text{s} - 0\text{s}} \\ &= -\frac{2\text{m}}{6\text{s}} \\ &= -\frac{1}{3}\text{m/s} \end{aligned}$$

find average speed:

$$\begin{aligned} \text{Speed}_{\text{avg}} &= \frac{\text{path length}}{\Delta t} \\ &= \frac{3\text{m} + 0\text{m} + 5\text{m}}{6\text{s} - 0\text{s}} \\ &= \frac{8\text{m}}{6\text{s}} \\ &= \frac{4}{3}\text{m/s} \end{aligned}$$



Find average velocity:

$$\begin{aligned}
 \bar{v} &= \frac{\Delta x}{\Delta t} \\
 &= \frac{0\text{m} - 4\text{m}}{7\text{s}} \\
 &= -\frac{4\text{m}}{7\text{s}}
 \end{aligned}$$

Find average speed:

$$\begin{aligned}
 \text{speed}_{\text{avg}} &= \frac{\text{path length}}{\Delta t} \\
 &= \frac{3\text{m} + 7\text{m}}{7\text{s}} \\
 &= \frac{10\text{m}}{7\text{s}}
 \end{aligned}$$

What is the equation for ①?

$$x_f = \bar{v} \Delta t + x_i$$

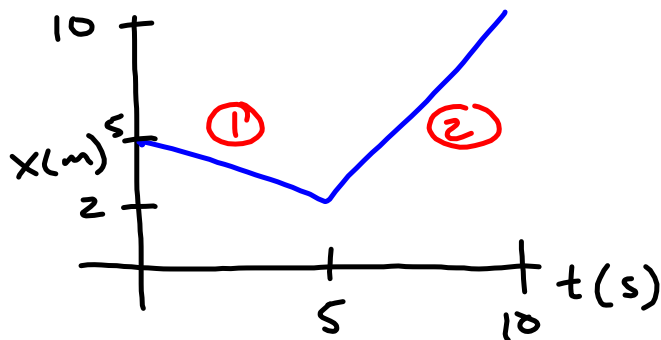
↑ ↑
 Fill in

$$x_f = \left(\frac{3}{4} \text{m/s}\right) \Delta t + 4\text{m}$$

$$x_f = \left(\frac{3}{4} \text{m/s}\right) (4\text{s}) + 4\text{m}$$

$$= 3\text{m} + 4\text{m}$$

$$= 7\text{m} \checkmark$$



$$V_1 = \frac{2\text{m} - 5\text{m}}{5\text{s} - 0\text{s}} = -\frac{3}{5} \text{ m/s}$$

$$V_2 = \frac{10\text{m} - 2\text{m}}{10\text{s} - 5\text{s}} = \frac{8}{5} \text{ m/s}$$

$$V_{\text{avg}} = \frac{\Delta X}{\Delta t}$$

$$= \frac{10\text{m} - 5\text{m}}{10\text{s}}$$

$$= \frac{5\text{m}}{10\text{s}} = \frac{1}{2} \text{ m/s}$$

$$\text{Speed}_{\text{avg}} = \frac{\text{path length}}{\Delta t}$$

$$= \frac{3\text{m} + 8\text{m}}{10\text{s}}$$

$$= \frac{11}{10} \text{ m/s}$$

find equation for ①

$$X_f = \underbrace{\bar{v}}_{\text{fill in}} \Delta t + \underbrace{X_i}$$

$$X_f = \left(-\frac{3}{5} \text{ m/s}\right) \Delta t + 5\text{m}$$

