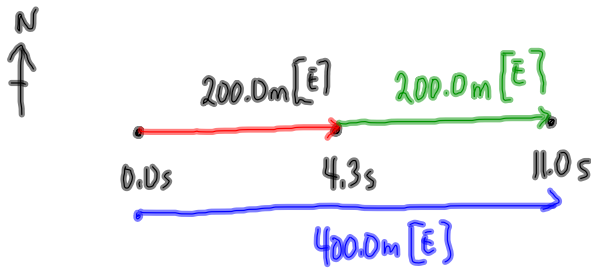


MP/42



a) $\Delta \vec{d} = 200.0\text{m [E]}$ } G
 $\Delta t = 4.3\text{s}$ }
 $\vec{V}_{\text{ave}} = ??$ } R

$\vec{V}_{\text{ave}} = \frac{\Delta \vec{d}}{\Delta t}$ } A
 $\vec{V}_{\text{ave}} = \frac{200.0\text{m [E]}}{4.3\text{s}}$ } S
 $\vec{V}_{\text{ave}} = 47\text{m/s [E]}$ }

The average velocity for the first 200.0m was 47m/s [E] } P

b) $\Delta \vec{d} = 200.0\text{m [E]}$
 $\Delta t = 11.0\text{s} - 4.3\text{s} = 6.7\text{s}$
 $\vec{V}_{\text{ave}} = ??$

$\vec{V}_{\text{ave}} = \frac{\Delta \vec{d}}{\Delta t}$
 $\vec{V}_{\text{ave}} = \frac{200.0\text{m [E]}}{6.7\text{s}}$
 $\vec{V}_{\text{ave}} = 3.0 \times 10^1 \frac{\text{m}}{\text{s}} \text{ [E]}$

The average velocity was $3.0 \times 10^1 \frac{\text{m}}{\text{s}} \text{ [E]}$

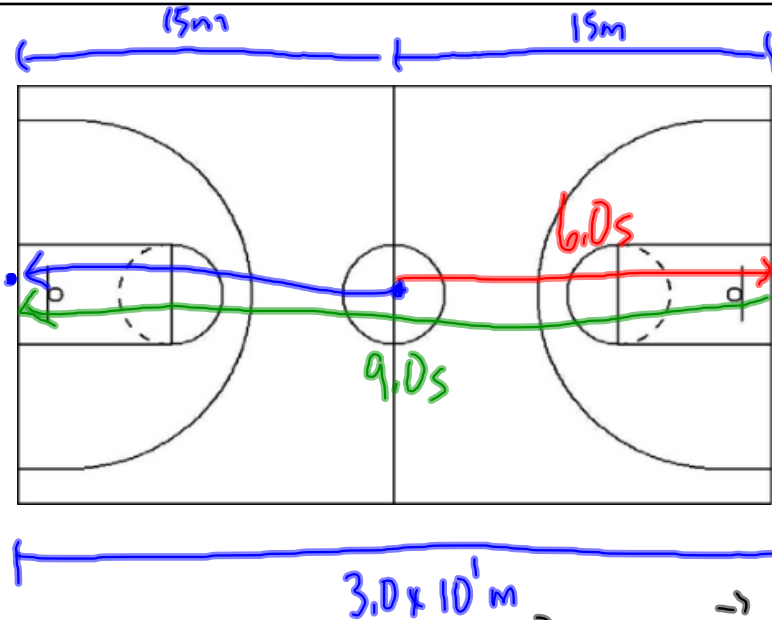
c) $\Delta \vec{d} = 400.0\text{m [E]}$
 $\Delta t = 11.0\text{s}$
 $\vec{V}_{\text{ave}} = ???$

$\vec{V}_{\text{ave}} = \frac{\Delta \vec{d}}{\Delta t}$
 $\vec{V}_{\text{ave}} = \frac{400.0\text{m [E]}}{11.0\text{s}}$
 $\vec{V}_{\text{ave}} = 36.4\text{m/s [E]}$

The average velocity for the whole trip was 36.4m/s [E]

★ ★ ★
NOTE! ★
 $V_{\text{ave}} \neq \frac{V_1 + V_2 + V_3 + \dots + V_n}{n}$ ★
 ★ ★ ★

MP/44

a) $\Delta \vec{d} = 15\text{m} [\vec{E}]$

$\Delta t = 6.0\text{s}$

$V_{\text{ave}} = ?$

$\vec{V}_{\text{ave}} = \frac{\Delta \vec{d}}{\Delta t}$

$\vec{V}_{\text{ave}} = \frac{15\text{m} [\vec{E}]}{6.0\text{s}}$

$\vec{V}_{\text{ave}} = 2.5\text{m/s} [\vec{E}]$

The average velocity was $2.5\text{m/s} [\vec{E}]$.

b) $\Delta \vec{d} = 3.0 \times 10^1\text{m} [\vec{W}]$

$\Delta t = 9.0\text{s}$

$\vec{V}_{\text{ave}} = ?$

$\vec{V}_{\text{ave}} = \frac{\Delta \vec{d}}{\Delta t}$

$\vec{V}_{\text{ave}} = \frac{3.0 \times 10^1\text{m} [\vec{W}]}{9.0\text{s}}$

$\vec{V}_{\text{ave}} = 3.3\text{m/s} [\vec{W}]$

The average velocity was $3.3\text{m/s} [\vec{W}]$

Rearranging $v = \frac{\Delta d}{\Delta t}$

Solve for Δd : $v = \frac{\Delta d}{\Delta t}$

$$\Delta d = v \Delta t$$

Solve for Δt : $v = \frac{\Delta d}{\Delta t}$

$$\frac{v \Delta t}{v} = \frac{\Delta d}{v}$$

$$\Delta t = \frac{\Delta d}{v}$$

To Do:

① PP/45-46

② Velocity Review 6-13