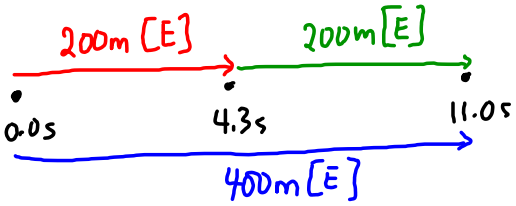
mp|42




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

$\vec{v}_{ave} = \frac{\Delta\vec{d}}{\Delta t}$ ← A

$\vec{v}_{ave} = \frac{200.0\text{m}\,[E]}{4.3\text{s}}$ } S

$\vec{v}_{ave} = 47\text{ m/s}\,[E]$

P { The average velocity for the fist 200.0m was 47 m/s [E].

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

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

$\vec{v}_{ave} = \frac{200.0\text{m}\,[E]}{6.7\text{s}}$

$\vec{v}_{ave} = 3.0 \times 10^{1}\text{ m/s}\,[E]$

The average velocity for the last 200.0m was $3.0 \times 10^{1}$ m/s [E]

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

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

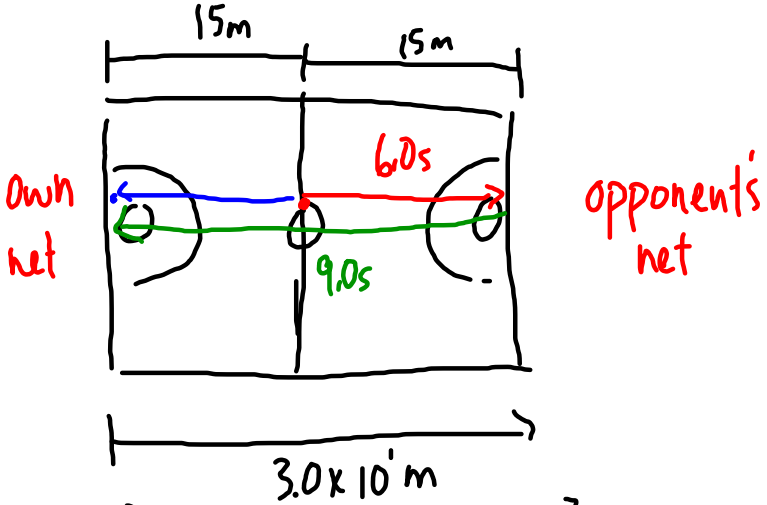
$\vec{v}_{ave} = \frac{400.0\text{m}\,[E]}{11.0\text{s}}$ 3sd

$\vec{v}_{ave} = 36.4\text{ m/s}\,[E]$

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

NOTE: $v_{ave} \neq \frac{v_1 + v_2 + v_3 + v_4 + \ldots v_n}{n}$

MP|44




a) $\vec{\Delta d}$ = 15m [towards opp. net]

$\Delta t$ = 6.0s

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

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

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

$\vec{V}_{ave}$ = 2.5m/s [toward opp net]

The average velocity was 2.5m/s [tow. opp. net]

3.0x10^1 m (2sd)

b) $\vec{\Delta d}$ = 30m [away from opp. net]

$\Delta t$ = 9.0s

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

$$\vec{V}_{ave} = \frac{\vec{\Delta d}}{\Delta t}$$ 2sd.

$$\vec{V}_{ave} = \frac{30\text{m [away fr. opp. net]}}{9.0\text{s}}$$

$\vec{V}_{ave}$ = 3.3 m/s [away fr. opp net]

The ave. vel of the player was 3.3 m/s [away from opp net]

TODO: PP|45-46

Read Chapter 2

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

Solve for $\Delta d$: $\Delta d = v\Delta t$

Solve for $\Delta t$:

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

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

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

Velocity Review Sheet (14, 17, 19-21)

Notes about Assignment: VELOCITY PROBLEMS

- Due Thurs, Oct 3

Watch out for:

- scl + direction
- do all work on looseleaf - show all work.
- if there is more than one stage of the motion => $V_{ave} = \frac{\text{overall displacement}}{\text{overall time}}$

$$V_{ave} \neq \frac{V_1 + V_2 + V_3 + \ldots V_n}{n}$$

- draw any diagrams that might be useful
- look over MP|55 -> example of using a tangent to find instantaneous velocity
- don't forget the back
- don't round until final answer.