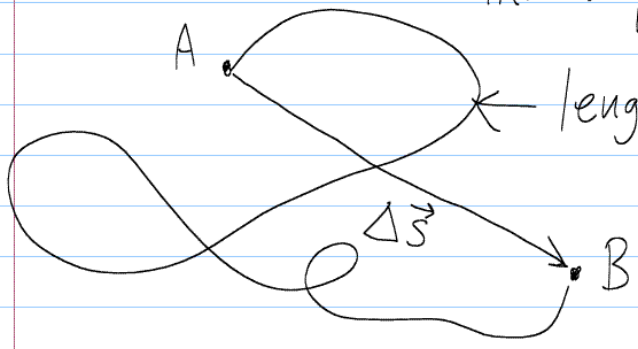
PHY131H1F Centre-screen notes
Wednesday Sep. 12, 2012

Hello class!

Definitions.

Distance : how far you traveled (scalar) [m]

Displacement : final position − initial position (vector) [m]



length of path = d

displacement = $\Delta\vec{s}$ "Delta"

$$d \geq |\Delta\vec{s}|$$

Average Speed = $\frac{\text{distance}}{\text{time}} = \frac{d}{\Delta t}$ (scalar) [m/s]

V_{avg} $\bar{V}$

Average velocity = $\frac{\text{displacement}}{\text{time}} = \frac{\Delta\vec{s}}{\Delta t}$ (vector) [m/s]

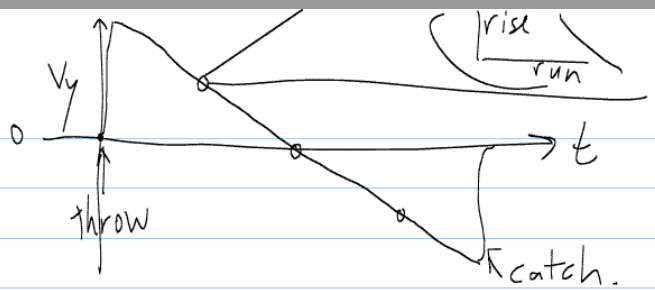
$\vec{V}_{avg}$

Instantaneous velocity: ("aka. "velocity")

$$\vec{V} = \lim_{\Delta t \to 0} \left(\frac{\Delta\vec{s}}{\Delta t}\right)$$

Acceleration can be found as slope of velocity vs. time graph.

Angry bird.


rise
run
Slope $a = \frac{\Delta v}{\delta t}$
v_y
0
t
throw
catch.