

AP Physics - Kinematics - Day 2

Note Title

8/23/2007

Kinematics: Study of motion

→ Motion is relative

→ Depends on your
point of reference

Distance (d) - How far did you go?

Displacement ($\Delta x, \Delta y, \Delta z$) - How far and in
what direction are you
from the start?

→ Change in position

$$\rightarrow \Delta x = x_f - x_i$$

Day 2 - Continued

Speed - How fast you go

→ Rate at which you cover distance

$$\rightarrow S = \frac{\text{distance}}{\text{time}}$$

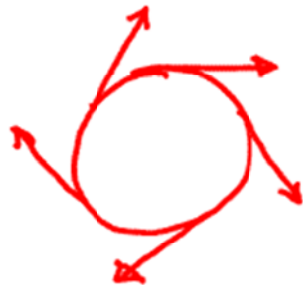
$$\rightarrow \text{Average Speed } \bar{S} = \frac{\text{Total Distance}}{\text{Total Time}}$$

Velocity: Speed + Direction

$$\rightarrow \text{Average Velocity } \bar{V} = \frac{\Delta X}{\Delta t}$$

Changing velocity while speed stays same:

→ Go in a circle!



→ Direction changes
↳ Velocity changes