Jan 9-th, 2013

Central Ideas from Chapter 1

- Position
- Time
- Speed
- Velocity
- Acceleration
- Motion Diagrams

Speed: $\frac{\text{change in position of object}}{\text{change of time}}$

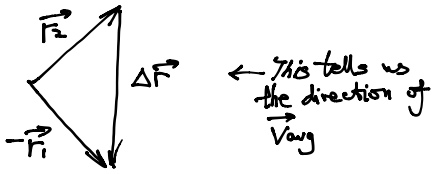
velocity is the above and the direction of motion.

$$\vec{V}_{avg} = \frac{\Delta \vec{r}}{\Delta t} = \frac{\vec{r}_2 - \vec{r}_1}{t_2 - t_1}$$

Δ = "Delta" = "change in"

$\vec{r}_1$ = position vector at 1

$\vec{r}_2$ = position vector at 2



← This tells us the direction of $\vec{V}_{avg}$

Acceleration: $\frac{\text{change in velocity of object}}{\text{change in time}}$

$$\vec{v}_2 = \vec{v}_1 + \vec{a}\Delta t$$