

## Graphical Kinematics Notes Part 2

Reference point - velocity depends on where you are

position -  $d$  - distance from object to reference point

distance - direction not important just separation

displacement - change in position

velocity - has direction and magnitude

speed - has magnitude only

average velocity equation -

constant velocity  $v=d/t$  when is constant

scalar (magnitude only)/vector (magnitude & direction)

**acceleration** (average acceleration)

instantaneous position/velocity/acceleration - a moment in time -  $dd/dt$ ,  $dv/dt$ , etc.

position -vs- time graph  $d$  or  $v$

velocity -vs- time graph time

relativity (frame of reference) - depends where you are (throw ball off car)