

$\vec{a}_{av} = \frac{\vec{v}_f - \vec{v}_i}{\Delta t}$ 
 $\Delta \vec{d} = \frac{1}{2}(\vec{v}_i + \vec{v}_f)\Delta t$

$\Delta \vec{d} = \vec{v}_i \Delta t + \frac{1}{2} \vec{a}_{av} \Delta t^2$ 
 $\Delta \vec{d} = \vec{v}_f \Delta t - \frac{1}{2} \vec{a}_{av} \Delta t^2$

$\vec{v}_f^2 = \vec{v}_i^2 + 2\vec{a}_{av}\Delta \vec{d}$

**The Big 5**  
 (acceleration is not zero)