

Proof of EQN 1  $\vec{v}_f = \vec{v}_i + \vec{a}t$

$$\vec{a} = \frac{\Delta \vec{v}}{\Delta t}$$

$$a = \frac{\Delta v}{t} = \frac{v_f - v_i}{t}$$

$$a = \frac{v_f - v_i}{t}$$

$$a t = v_f - v_i$$

$$a t + v_i = v_f$$

$$v_f = v_i + a t$$