Key Ideas

- Earlier: Work-Energy
  - $\Sigma F = m a$ multiply both sides by d
  - $\Sigma F d = m a d$ (note $a d = \frac{1}{2} \Delta v^2$)
  - $\Sigma F d = \frac{1}{2} m \Delta v^2$
  - $\Sigma W = \Delta KE$ Define Work and Kinetic Energy

- This Time: Impulse-Momentum
  - $\Sigma F = m a$ multiply both sides by Δt
  - $\Sigma F \Delta t = m a \Delta t$ (note $a \Delta t = \Delta v$)
  - $\Sigma F \Delta t = m \Delta v$
  - $\Sigma I = \Delta p$ Define Impulse and Momentum demo