

- 1)  $\frac{1}{2} \frac{d}{dt} \left( \frac{1}{2} m v^2 \right) = \frac{1}{2} m v \frac{dv}{dt}$
- 2)  $\frac{1}{2} m v \frac{dv}{dt} = \frac{1}{2} m v \frac{dv}{dt}$
- 3)  $\frac{1}{2} m v \frac{dv}{dt} = \frac{1}{2} m v \frac{dv}{dt}$