

①

BEFORE

AFTER

IS THIS COLLISION POSSIBLE?
SYSTEM: A + B.

$P_0 = 0$

$P_F = -3 \text{ kg} \frac{\text{m}}{\text{s}} \quad P_F = (3)(-2) + (1)(3)$

Feb 10-9:23 AM

$P_0 \neq P_F \Rightarrow$ IT'S NOT POSSIBLE

②

BEF.

AFT

$P_0 = P_F$

SYSTEM: BALL + BUCKET

Feb 10-9:33 AM

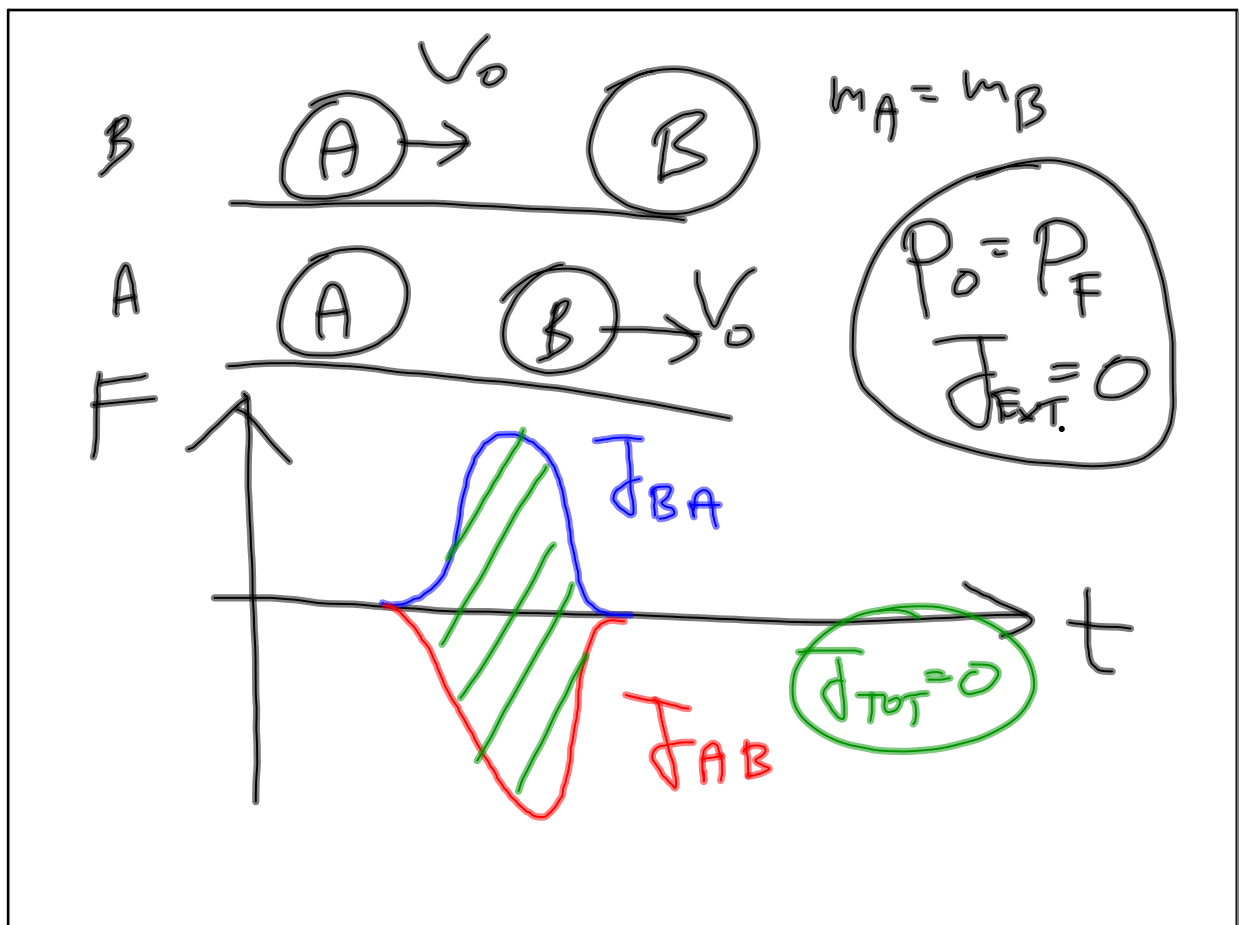
$$(0.4)(8.5) + 0 = (0.4 + 0.15)V_F$$

$$b) K_0 = \frac{1}{2}(0.4)(8.5^2)$$

$$K_F = \frac{1}{2}(0.4 + 0.15)(V_F^2)$$

$$K_0 > K_F$$

Feb 10-9:36 AM



Feb 10-9:46 AM

$P_0 + J_{EXT.} = P_F$

A) $\Delta P_{B \rightarrow I} = ?$
 B) $J_{W \rightarrow B} = ?$

A) $\Delta P = P_F - P_0$
 $\Delta P = -4 - 6$
 $\Delta P = -10 \text{ kg} \cdot \frac{\text{m}}{\text{s}}$

Feb 10-9:50 AM

$J = \Delta P$

$J_{UB} = -10 \text{ N} \cdot \text{s}$

$J_{BW} = ?$ $J_{UB} = -J_{BW} \text{ (N} \cdot \text{sL)!}$

$J_{BW} = 10 \text{ N} \cdot \text{s}$

Feb 10-9:55 AM