

If  $J = 0$  (system is isolated = no contact with the environment), then the momentum is conserved.

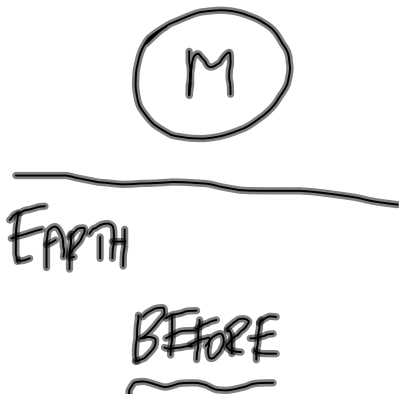
$$P_{is} = P_{fs}$$

If  $J \neq 0$  (system is not isolated = there is contact with the environment), then the momentum is NOT conserved.

$$P_{is} + J = P_{fs}$$

Jan 30-7:45 AM

[ HW Q#12 ]



The answer depends on what is your system of interest!

If the system is M only, then

$$P_i \neq P_f \text{ (NOT CONSERVED)}$$

If the system is M & E, then

$$P_i = P_f \text{ (CONSERVED)}$$

Jan 30-8:23 AM