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University of Idaho A few more comments about
problem solving in "particle kinetics"

- ① In Newton's 2nd law $\vec{F} = m\vec{a}$,
 \vec{F} is the resultant of the applied external
forces. In ENERGY, with the exception of gravity,
 \vec{F} can only be applied by contact.

② Problem Solving Procedure

- a) Draw a free body diagram for each ptcle.
- b) Assign a coordinate system to each ptcle.
- c) Sketch external forces on FBD's.
- d) Write Newton's Laws (rect, nt, r θ).
- e) Count equations and unknowns.
- f) If unknowns > equations, find additional eqns, most likely, kinematic constraints.