

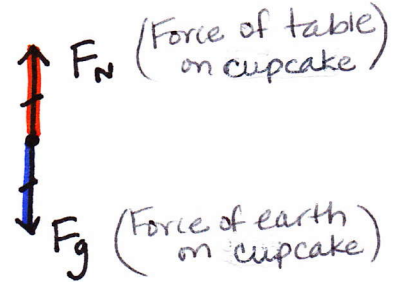
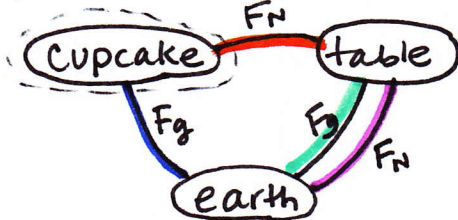
IF1 - System Schema and Free Body Diagrams - A

Note: Each interaction on a system schema is represented with a different color.

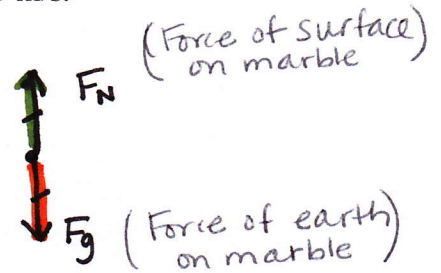
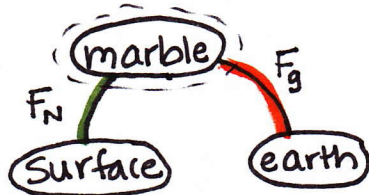
Directions: For each situation...

- (a) draw a system schema diagram
- (b) draw a quality FBD for the object in bold

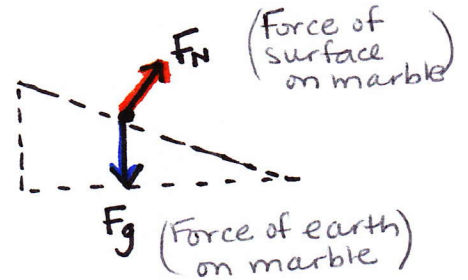
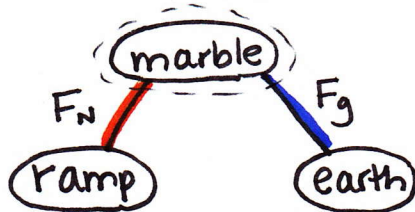
1) A **cupcake** is on the table.



2) A **marble** is rolling to the left along a flat surface with a speed of 2.3 m/s. (Assume friction is negligible)



3) A **marble** is rolling down a ramp. The ramp slopes downward to the right. (Assume friction is negligible)



Check:

- Is your F_N vector perpendicular to the ramp?
- Is your F_N vector shorter than your F_g vector?