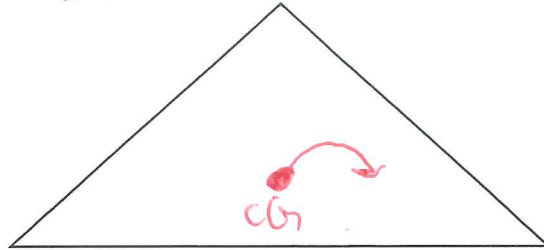


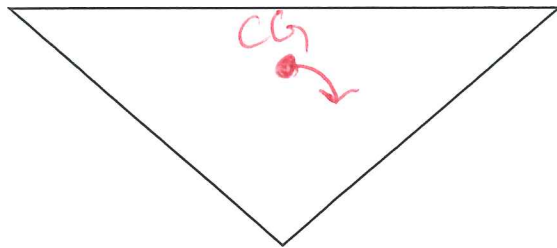
Stability

When the Center of Gravity of an object must rise when it is rotated, the object is stable. The CG must remain above its support base.

Stable

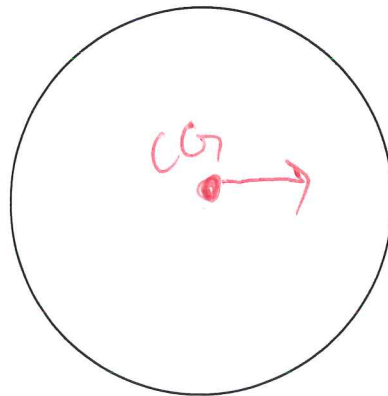


Unstable

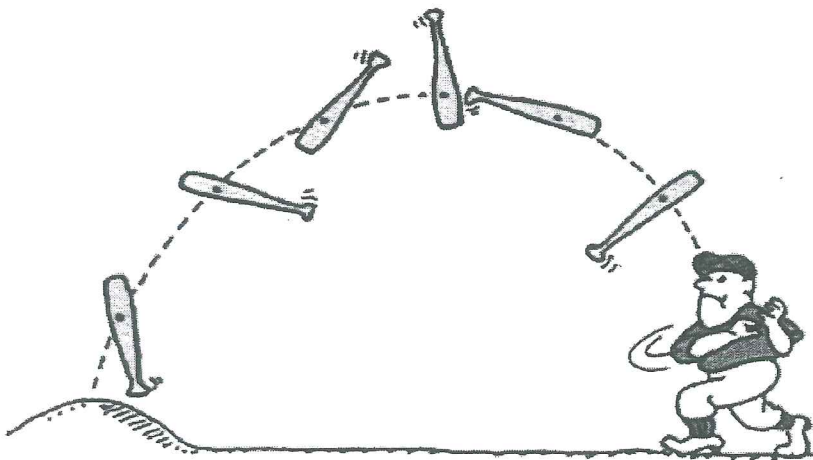


CG falls or lowers.

Neutrally Stable

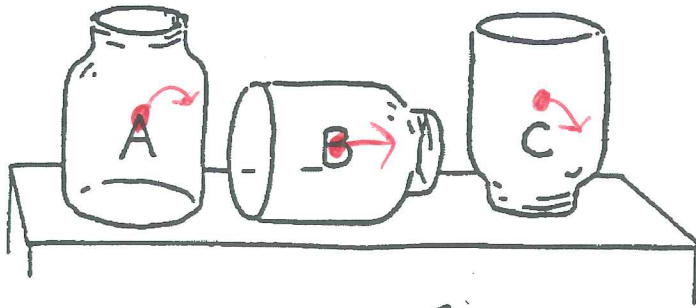


CG stays same height.

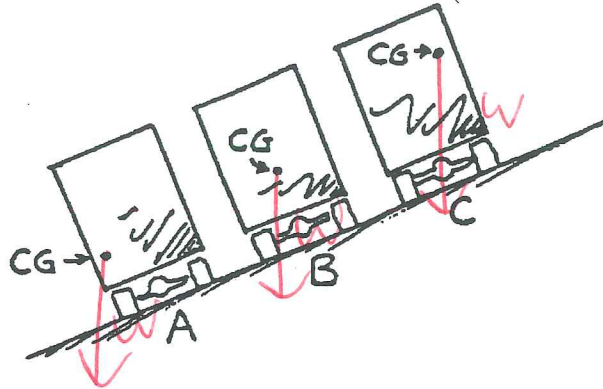


Center of Gravity

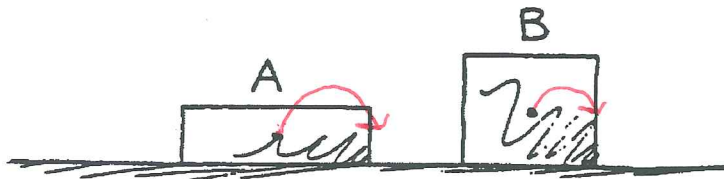
1. Which bottle is the most stable? A
 least stable? C
 neutral? B



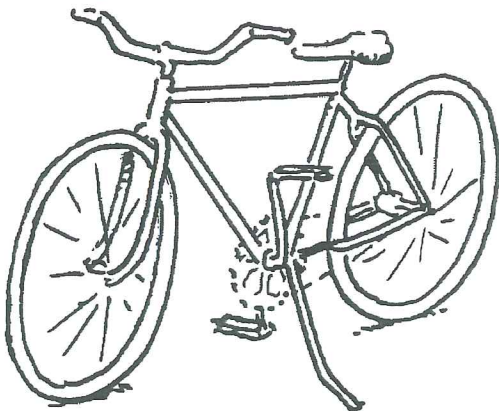
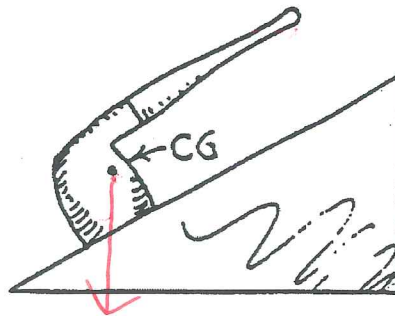
2. Draw vectors for the weight of each truck.
 Which truck will tip over? A
 Why? b/c CG is not over base



3. Both blocks have equal mass. Which requires more work to tip over? A
 Why? CG has to move higher in order to tip
→ more stable



4. Why or why not will the pipe tip over?
not → b/c CG is over the base



5. The wheels of a bike provide two points of contact with the ground. A kick stand provides a third. Sketch in the triangular area bounded by the three points of ground contact. Where is the CG of the bike with respect to this area?
