__**C**__   **1)** The center of mass (CM) of an object or group of objects:
  A) is a point where there is always a mass.
  B) is always at the exact geometric center of an object.
  C) is a coordinate, not a mass.
  D) has nothing to do with how gravity operates on a mass.
  E) only needs to be calculated in one dimension.

__**B**__   **2)** The center of mass (CM) of an object or group of objects:
  A) depends on where you place your coordinate origin.
  B) is the same as the CM of the CM's of any pieces of the object.
  C) can very rarely be determined by symmetry.
  D) can be moved by explosions inside the object.
  E) cannot be calculated unless the objects are points.

__**A**__   **3)** I have a 1-kg ball, at x=1, a 2-kg ball at x=2, and a 3-kg ball at x=3. The CM is at:
  A) $^7/_3$ B) $^7/_2$ C) $^6/_7$
  D) $^8/_3$ E) $^{14}/_5$ F) $^5/_2$

__**E**__   **4)** You are moving about a space capsule which is in orbit around the Earth. The CM of
you plus the rest of the space capsule:
  A) cannot be moving at all.
  B) moves with you as you move about.
  C) moves opposite to your direction as you move about.
  D) cannot wobble up and down (relative to the Earth), but can wobble back and forth.
  E) continues to orbit the Earth in a circle as though you are not moving.

__**D**__   **5)** The clown toy that I showed you in class is capable of balancing on a string because:
  A) the string runs perfectly below the CM of the clown.
  B) the string is attached to the toy's wheels.
  C) circus forces unknown to science keep it upright.
  D) two lead balls place its CM below the string.
  E) the clown toy is very light.