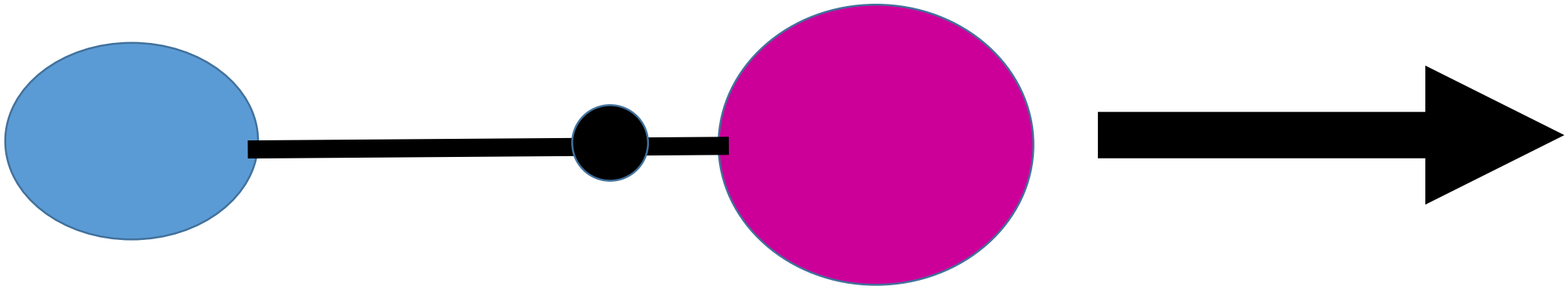
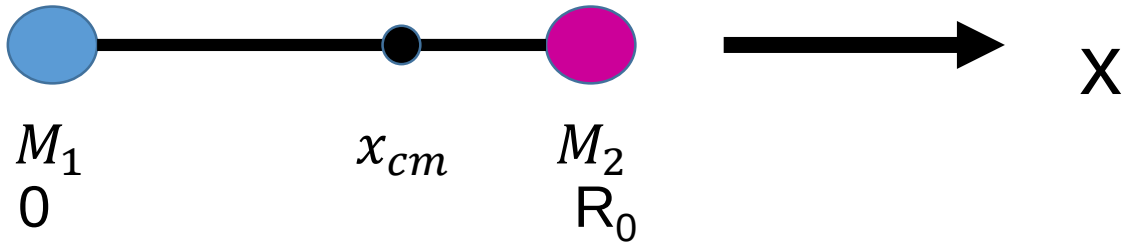
Center of mass and reduced mass problem



Center of mass and reduced mass problem

Given the drawing below determine the quantities in terms of M_1 , M_2 and R_0. Please assume that the origin is at mass 1 and the distance R_0 is at mass 2.

(a) the center of mass along the x axis as a fraction of R_0.



(b) the definition of the reduced mass μ based on the moment of inertia