1. 7.42 (Assume that the curve at the base of the incline is smooth enough so that no energy is lost in rounding it.)
2. 7.58
3. 7.72
4. Bead Slides Around and Up Wire – 5 points
A bead of mass M slides on a smooth wire that is bent in a circle of radius R. It is released at the top of the circular part of the wire (point a in the figure) with a negligibly small velocity.

a) Find the normal force of the wire on the bead at point b (even with the center of the circle)
b) Find the normal force at point c (at the bottom of the circle).
c) Find the height H of point d where the mass will reverse direction.