

Particle Work Energy: Example Problem 4

A roller coaster car of mass m crests the hill at A with nearly zero velocity. (a) Determine the height difference Δh between points A and B in order for the car to successfully make it around the loop (of radius r) at B. (Neglect rolling friction and wind resistance.) (b) Is there any advantage to designing a roller coaster loop as an oval (as shown), not a circle?





