

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Department of Physics

Physics 105A

Winter 2012

Prof. Gary Horowitz

TA William Kelly

ASSIGNMENT #2

Due by Friday, January 20 at 5pm in box on first floor of Broida

- 1) A small puck of mass m is kicked up an inclined plane (angle of slope θ) with initial velocity v_0 . There is no friction between the puck and the incline, but there is air resistance with magnitude $f(v) = bv$. Find the velocity of the puck as a function of time.

- 2) Taylor, problem 2.8

- 3) Taylor, problem 2.11

- 4) Taylor, problem 2.31

- 5) Taylor, problem 2.40