

Week 57 (10/13/03)

**Throwing a beach ball**

A beach ball is thrown upward with initial speed  $v_0$ . Assume that the drag force from the air is  $F = -m\alpha v$ . What is the speed of the ball,  $v_f$ , when it hits the ground? (An implicit equation is sufficient.) Does the ball spend more time or less time in the air than it would if it were thrown in vacuum?