

Name-code: \_\_\_\_\_

### Part A: Obligatory Problems

1. On an inclined plane with angle  $\alpha$  with the horizontal a small body was given an initial velocity  $v_0$ . Find the relation between the speed of the body and the angle  $\phi$  (at the initial moment,  $\phi_0 = \pi/2$ ) if the friction coefficient is  $\mu = \tan \alpha$ .

