

Name:	
ID:	
Total Score (out of 10 pts):	

-4/10 points for attending-

**Question 1 (6/10 points)**

A box is sliding at a speed of  $v_0$  on a horizontal surface. Then it encounters a friction surface where the coefficient of friction increases linearly from 0.100 to 0.500 in a distance of  $d$ , and the box stops at  $d$ . Find  $v_0$  in terms of given quantities and  $g$ . Hint: Remember last week's quiz!