

1. (*Kleppner Ex. 7.41*) This problem utilizes most of the important laws introduced so far and it is worth a substantial effort. The problem is tricky (although not really complicated), so don't be alarmed if the solution eludes you.

A plank of length  $2L$  leans against a wall. It starts to slip downward without friction. Show that the top of the plank loses contact with the wall when it is at two-thirds of its initial height.

