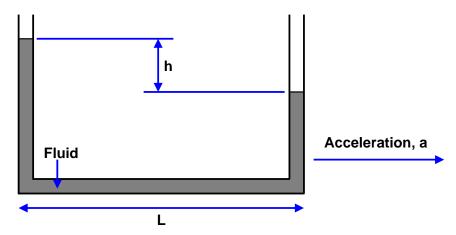## Problem 102B

The U-tube sketched below is mounted on a vehicle in order to measure the horizontal acceleration of that vehicle:

When the vehicle is accelerating at a constant rate, a (in m/s^2) , the difference in the elevation of the levels in the manometer is h. What is the relation between a, h, L and the acceleration due to gravity, g ?