

Name_____ Student number_____

Assignment 4 (4p)

A cylindrical container of height L , (mid-surface) radius R , density ρ , and thickness t is loaded by its own weight. Assume rotation symmetry and use the membrane equations in (z, ϕ, n) coordinate system to find the stress resultant and the displacement components. Assume that friction between the container and floor is small and cannot constraint the transverse displacement at the contact points and rigid body motion is not possible (constrained somehow).

