

### Homework H15.A

**Given:** A flotation device is made up of a hollow hemispherical cap. Two cables are attached to C on a superstructure for the flotation device. The water in which the float is placed has a mass density of  $\rho$ . The weight of the flotation device and superstructure is to be considered negligible compared to the water that is displaced by the device.

**Find:** Determine the tension in each cable for  $H = R/2$ .

Use  $b = 2R$ . Leave your answer in terms of, at most:  $R, g$  and  $\rho$ .

