

Physics 303

Homework No. 24

due Thursday, 4 December, 2008

1. Please do problems 9.3 and 9.4 from your text.

They basically ask you to determine (or confirm) the direction and magnitude of the tidal acceleration (relative to g) of some object on the surface of the earth when the angles away from the \hat{x} -axis are 0 radians, π radians—in 9.3—and $\pi/2$ radians—in 9.4. In addition to those three, please also perform these calculations for $\pi/4$ radians, i.e., the point halfway along the surface of the earth between points R and Q .

2. Please do problems 9.8 and 9.9 from your text.

As these problems ask for directions of various forces, as seen in the earth's reference frame. Therefore, in each case please make reasonably clear figures showing the entire earth and the desired directions.