Homework Assignment 5
(Due in class Thus. Oct. 8)

(10) 1. Taylor 7.18

(10) 2. Taylor 7.20

(10) 3. Taylor 7.31

(10) 4. Taylor 7.41

(10) 5. A particle is constrained to move without friction on a circular wire rotating with constant speed $\omega$ about a vertical diameter. Find the equilibrium position of the particle, and calculate the frequency of small oscillations around this position. Find and interpret physically a critical angular velocity, $\omega = \omega_c$, that divides the particle’s motion into two distinct types.