PHYS5701   Quantum Mechanics I   Fall 2020   HW #2

Due at 5pm to the **Grader** on Thursday 17 Sep 2020

(1) MQM3e Problem 1.11

(2) MQM3e Problem 1.21

(3) MQM3e Problem 1.27

(4) MQM3e Problem 1.31. Note that the classical Poisson bracket is

$$[u, v]_{\text{classical}} \equiv \sum_i \left[\frac{\partial u}{\partial q_i} \frac{\partial v}{\partial p_i} - \frac{\partial u}{\partial p_i} \frac{\partial v}{\partial q_i} \right]$$

where u and v are functions of the sets of canonical variables q and p. See, for example, Goldstein, Poole, and Safko (2002) Sec.9.5. Also note that this, and many other, textbooks are listed in the Bibliography at the back of MQM3e.

(5) MQM3e Problem 1.34