

Chem. 2430 – HW # 4.

Assigned 10/3, due 10/13.

1. problem 4.10
2. problem 4.16
3. problem 4.19
4. problem 6.6
5. Consider the particle-on-a-ring problem with a perturbation  $H^{(1)} = \epsilon \sin^2$ . What are the energies of the original  $m = 0, +1$ , and  $-1$  levels in the presence of this perturbation. Treat the problem variationally.