Chem. 540
Instructor: Nancy Makri

FORMALISM PROBLEM 7

Show that if the Hamiltonian is changed by adding a constant, the eigenfunctions remain the same but the eigenvalues are shifted by this constant. This means that if we redefine the zero of energy in a system, all the eigenvalues will be shifted accordingly by a constant amount. Nothing else is affected, so the choice of the zero of energy is arbitrary.