1. *Hydrogen Atom*

   Griffiths Problem 4.12 and 4.16

2. *Infinite Spherical Well*

   Find the ground state wavefunction for a particle of mass μ in the 3D potential $V(r) = \infty$ $(x > a)$, $V(r) = 0$ $(x < a)$. You may assume that the ground state has no angular momentum $(\ell = 0)$.