## 1. A few Griffiths problems dgriff

Griffiths 3rd ed.: problems 1.7, 1.14, 2.14, and 2.18.

## 2. Particle on a circle

Imagine a bead of mass  $\mu$  that slides frictionlessly around a circular wire ring of circumference L. (This is effectively a one-dimensional problem, similar to the infinite square well, except that the boundary condition on the wavefunction is now periodic:  $\psi(L) = \psi(0)$ .) Find the stationary states (correctly normalized) and the corresponding allowed energies of the bead. What is the degeneracy of each energy level?