

11/9/16 Physics 212a Homework 5, due Friday December 2

1. Sakurai 3.24 (question about adding $j_1 = 1$ and $j_2 = 1$).
2. Sakurai 3.28 (question about two spin $1/2$ particles).
3. Sakurai 3.30 (question about forming $\ell = 1$ and $\ell = 2$ out of two vectors, as briefly discussed in class; read the word "rank" in the question to just mean ℓ).
4. Sakurai 3.31 (Wigner-Eckart).
5. Sakurai 3.32 (quadrupole moment question)
6. Sakurai 3.10 (Ensemble of spin $1/2$).
7. Sakurai 3.12 (Ensemble of spin 1).
8. Sakurai 4.1 (three and four noninteracting spin $1/2$ particles in a box).