

Homework March 19, 706, Spring 2009, due: April 16

- 1) Problem 4 of chapter 3 of Sakurai. Explain your results, *i.e.*, explain why you could have guessed the answers.
- 2) Problem 12 of chapter 3 of Sakurai.
- 3) Problem 13 of chapter 3 of Sakurai. Interpret the second part of the problem in the following way: find the unitary matrix which transforms G_z into J_z as we constructed it in class. This gives us a basis transformation. Find out what happens with $G_{x,y}$ under this basis transformation.
- 4) Problem 15, parts (a) and (b) of chapter 3 of Sakurai.