

Physics 129b
Problem Set Number 4
Due Wednesday, February 6, 2008

Reading: Finish reading chapter 3 of Wu-Ki Tung, on representation theory.

15. Exercise 4 of the note on “Representation Theory”.
16. Exercise 8 of the note on “Representation Theory”.
17. Exercise 9 of the note on “Representation Theory”.
18. The relation of irreducible representations and the invariant subspaces of a vector space: Do problem 11 in the note on “Representation Theory”. Don’t be alarmed if this problem takes some thought to understand. Also, there is more than one valid way to approach it.