

1. (From last week): Read in A&H: 12, 13 and 17  
True/False: I read this material.
  2. Read in A&H: 18.1 (skim) and 19  
True/False: I read this material.
  3. AH 9.2
  4. AH 9.5
  5. Consider the action of permuting three objects.
    - (a) Show that this forms a group.
    - (b) Give a matrix version of the defining representation, listing all elements.
    - (c) (optional) Show that this representation is reducible (Hint: find a vector which is an eigenvector of all the matrices.) Give the matrices in the reduced representation.
- (From Georgi, Lie Algebras, prob. I.C).