

Math 6980 Homework # 13, Assigned 2/21/06, Due 2/28/06

1. Use the Littlewood-Richardson rule to calculate:

$$\text{Ind}_{\Sigma_6 \times \Sigma_6}^{\Sigma_{12}} S^{(3,2,1)} \boxtimes S^{(2,2,2)}.$$

2. Use the Murnaghan-Nakayama rule to calculate the character $\chi^{(6,5,5,2)}$ on conjugacy classes corresponding to permutations with cycle type $(5, 4, 4, 3, 2)$, $(4, 4, 3, 3, 3, 1)$ and $(6, 6, 3, 3)$.
3. Calculate the character table for Σ_6 using any of the means we have discussed in class. Please show all your work!

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