Algebra Seminar

Introduction to group representations, III

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ABSTRACT: In the second lecture, I explained some fundamental facts about linear representations of finite groups over the complex numbers: (I) all linear representations are semisimple, (II) the number of irreducible representations (up to isomorphism) is equal to the number of conjugacy classes of the group, and (III) the irreducible characters χ_i satisfy the orthogonality relations $\langle \chi_i, \chi_j \rangle = \delta_{i,j}$. In the third lecture, I will illustrate these facts by discussing some applications such as the "Lemma that is not Burnside's" and possibly others. Time permitting, I will also briefly outline the reasons why facts (I) – (III) hold (without actually giving full proofs).

Monday, November 9, 2009
1:40 – 2:30 pm
Room 617, Wachman Hall
Department of Mathematics