

TOPICS IN REPRESENTATION THEORY

PROJECT WORK DUE ON 18/10/2006

Let k be a finite field and A be a finite abelian group. Write a report on the structure and the representation theory of $k[A]$.

This is a somewhat open-ended assignment, so how far you go, and what aspects of the theory you discuss is left to you. In contrast to the usual assignments, the arrangement of ideas and their presentation becomes much more important here. Imagine that you are writing an expository article for a non-specialised, but mathematically trained audience.

You are encouraged to make full use of all reference sources. However, you should be careful to cite them whenever you do so. If you have any questions, do not hesitate to e-mail me when I am away.

You should consider typesetting this project with $\text{T}_{\text{E}}\text{X}$ or $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$.

For the purposes of your grade, this project will count as one homework assignment.