Math 5594   **Homework 5, due Monday October 16, 2006**   **PJW**

Only hand in the starred questions.

Chapter 7, page 69: 2*, 3, 5*
Chapter 8, page 75: 2*, 3, 4*, 5*, 7.

Extra question: Let $U = S_1 \oplus \cdots \oplus S_r$ be an FG-module which is the direct sum of finitely many simple FG-modules $S_1, \ldots, S_r$. Show that if T is any simple submodule of U then $T \cong S_i$ for some i.

Exam On Friday October 20 we are due to have an exam (our second...!!!).