

Homework 5: Interpolation

Due: April 2, 2014

1. Let p_k be the polynomial of degree $\leq k$ such that $p_k(x_i) = y_i$ for $0 \leq i \leq k$. Prove that $p_k = p_{k-1}$ if and only if $p_{k-1}(x_k) = y_k$.
2. G&C: 8.1
3. G&C: 8.4a (Note you can combine the graphs from this problem and the next problem on one 2×2 graph using `subplot`).
4. G&C: 8.7 (Note for part b you can use the book's formulation or the class notes).
5. G&C: 8.16