

BST 140.778 Assignment 1

January 25, 2005

Fine print Please feel free to give each other small hints, but otherwise students must complete assignments individually. Assignments can be hand written, but note that sloppily prepared work will be returned ungraded.

Assignment 1

1. McCullough and Nelder Problem 2.1.
2. McCullough and Nelder Problem 2.2.
3. McCullough and Nelder Problem 2.3.
4. McCullough and Nelder Problem 2.7.
5. Show that when using a canonical link function, the Fisher scoring and Newton Raphson algorithms for finding glm MLEs are identical.
6. Show that, using the notation from class, for known ϕ and a canonical link, the sufficient statistics for a glm are $X^t y$ where t denotes a transpose.