

STAT 200B: Homework 4

due in class Tuesday, February 24th 2009

Homework

From the book: Problems 4.1.4, 4.1.5, and 4.9.4

Lab

1. weibull.txt can be found on the lab website. You can read it into R using the following commands:

```
weibull <- scan(url("http://cwick.co.nz/200b/weibull.txt"))
```

It contains data simulated from a Weibull distribution (see page 94 in the textbook) with shape parameter α and scale parameter θ . Use maximum likelihood estimation to estimate α and θ . Plot the log likelihood for the data, $l(\alpha, \theta)$ as a function of α with θ set to your estimate $\hat{\theta}$.