

STAT 670B

Homework 7 Problems (to be turned in)

due Wed. March 24

1. Let X_1, X_2, \dots, X_n be a random sample from pdf

$$f(x|\theta) = (\theta + 1)x^\theta, \quad 0 \leq x \leq 1.$$

- (a) Find the MLE of θ , $\hat{\theta}$.
- (b) Find the asymptotic variance of the MLE.
- (c) Find the limiting distribution of the MLE.

2. p. 505, Problem 10.3