

CSE 312: Foundations of Computing II

QuickCheck: Maximum Likelihood Estimator (due Thursday, May 24)

Name:

0. x^θ

Let $f_X(x|\theta) = \theta x^{\theta-1}$ for $0 \leq x \leq 1$, where θ is any positive real number. Let x_1, x_2, \dots, x_n be independent and identically distributed samples from this distribution. Derive and verify the maximum likelihood estimator $\hat{\theta}$.