CSE 312: Foundations of Computing II
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Lecture Topics: 7.1 Maximum Likelihood Estimation, 7.2 MLE Examples

[**Tags:** MLE]

1. Suppose $x = (x_1, \ldots, x_n)$ are iid samples from $\mathcal{N}(\theta_1, \theta_2)$ where θ_1 is the mean and θ_2 is the variance (both unknown). Let $\theta = (\theta_1, \theta_2)$ denote the parameter vector.
    a. What are the likelihood and log-likelihood of the data?
    b. What are the maximum likelihood estimates for θ_1, θ_2?