

MSE

1. Let $X_1, \dots, X_n | \theta \stackrel{\text{iid}}{\sim} \text{Poisson}(\theta)$.
 - (a) Find $MSE_\theta(X_1)$.
 - (b) Find $MSE_\theta(\hat{\theta}_{MLE})$.
 - (c) Find $MSE_\theta(2)$.
 - (d) Based on your answers in (a)-(c), which estimator do you think is best? Does it depend on n ? Does it depend on θ ?