Method of Moments

1. Let $X_1, \dots, X_n \overset{\text{iid}}{\sim} \text{Unif}[-\theta, \theta]$ where $\theta > 0$.

    (a) Obtain a method of moments estimator of θ.

    (b) Compare your answer to the MLE from last week's practice problems.

2. Suppose $X_1, \dots, X_n|\theta \overset{\text{iid}}{\sim} \text{Unif}[0, \theta]$. Is the sequence of method of moments estimators for θ a consistent sequence? Why or why not?