

Name: _____

Find the method of moments estimates for μ and σ^2 , based on a random sample of size n drawn from a normal pdf.

Solution

$$\hat{\mu} = \bar{X}$$

$$\sigma^2 = \text{Var}(X) = E[X^2] - (E[X])^2$$

$$\hat{\sigma}^2 = \frac{1}{n} \sum_{i=1}^n X_i^2 - (\bar{X})^2$$