

Worksheet 15

1. Find the MME for \hat{p} when $X \sim \text{Bin}(1, p)$.
2. Find the MME for $\hat{\mu}$ when $X \sim N(\mu, 1)$.
3. Let $X \sim U(a, b)$, the continuous uniform distribution between a and b ($a < b$). Find the mean and variance of X .
4. Find the MMEs for \hat{a} and \hat{b} when $X \sim U(a, b)$.
5. Find the MMEs for $\hat{\mu}$ and $\widehat{\sigma^2}$ when $X \sim N(\mu, \sigma^2)$.
6. Find the MMEs for $\hat{\alpha}$ and $\hat{\beta}$ when $X \sim \text{Gamma}(\alpha, \beta)$.