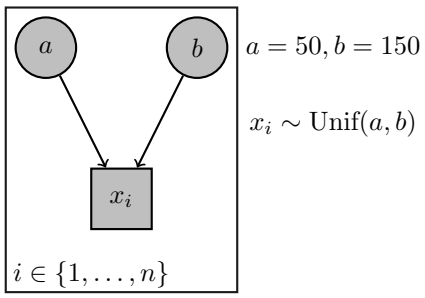
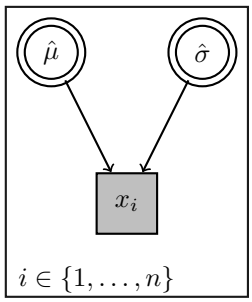


$a = 50, b = 150$

$x_i \sim \text{Unif}(a, b)$



$\hat{\mu} = \frac{1}{n} \sum_{i=1}^{n} x_i$

$\hat{\sigma} = \frac{1}{n} \sum_{i=1}^{n} (x_i - \mu)^2$

$x_i \sim \text{Norm}(\hat{\mu}, \hat{\sigma})$