Distribtion	pdf	mean	variance	MLE for θ	Likelihood	Bayes estimator for θ
Normal(μ, σ)	$\frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$	μ	σ^2	$\hat{\mu} = \bar{x}, \hat{\sigma}^2 = \frac{1}{n}\sum_{i=1}^n (x_i - \bar{x})^2$	$\left(\frac{1}{\sqrt{2\pi\sigma^2}}\right)^n e^{-\frac{1}{2\sigma^2}\sum_{i=1}^n (x_i-\mu)^2}$	$\frac{n\bar{x}+\mu_0}{n+1}$
Exponential	$\lambda e^{-\lambda x}$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$	$\hat{\lambda} = \frac{1}{\bar{x}}$	$\lambda^n e^{-\lambda \sum_{i=1}^n x_i}$	$\frac{n}{n+1}\bar{x}$
Uniform	$\frac{1}{b-a}$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$	$\hat{a} = \min(x_i), \hat{b} = \max(x_i)$	$\left(\frac{1}{b-a}\right)^n$	$\frac{a+b}{2}$
Gamma(α, β)	$\frac{\beta^\alpha x^{\alpha-1} e^{-\beta x}}{\Gamma(\alpha)}$	$\frac{\alpha}{\beta}$	$\frac{\alpha}{\beta^2}$	$\hat{\beta} = \frac{\alpha}{\bar{x}}$	$\left(\frac{\beta^\alpha}{\Gamma(\alpha)}\right)^n \prod_{i=1}^n x_i^{\alpha-1} e^{-\beta x_i}$	$\frac{\alpha+n\bar{x}}{\beta+n}$
Inverse Gamma(α, β)	$\frac{\beta^\alpha}{\Gamma(\alpha)} x^{-\alpha-1} e^{-\frac{\beta}{x}}$	$\frac{\beta}{\alpha-1}$ for $\alpha > 1$	$\frac{\beta^2}{(\alpha-1)^2(\alpha-2)}$ for $\alpha > 2$	$\hat{\beta} = \frac{\alpha}{\bar{x}}$	$\left(\frac{\beta^\alpha}{\Gamma(\alpha)}\right)^n \prod_{i=1}^n x_i^{-\alpha-1} e^{-\frac{\beta}{x_i}}$	$\frac{\beta+\sum_{i=1}^n \frac{1}{x_i}}{\alpha+n+1}$
Weibull(λ, k)	$\frac{k}{\lambda}\left(\frac{x}{\lambda}\right)^{k-1} e^{-(x/\lambda)^k}$	$\lambda\Gamma(1+\frac{1}{k})$	$\lambda^2\left[\Gamma(1+\frac{2}{k}) - \Gamma^2(1+\frac{1}{k})\right]$	$\hat{\lambda} = \left(\frac{\sum_{i=1}^n x_i^k}{n}\right)^{1/k}$	$\left(\frac{k}{\lambda}\right)^n \prod_{i=1}^n \left(\frac{x_i}{\lambda}\right)^{k-1} e^{-(x_i/\lambda)^k}$	$\lambda\left(\frac{\sum_{i=1}^n x_i^k}{n}\right)^{1/k}$
Poisson(λ)	$\frac{e^{-\lambda}\lambda^x}{x!}$	λ	λ	$\hat{\lambda} = \bar{x}$	$\left(\frac{e^{-\lambda}\lambda^{x_i}}{x_i!}\right)^n$	$\frac{n\bar{x}+\lambda_0}{n+1}$