Likelihood $p(y\|\theta)$ unknown par θ	Prior $p(\theta)$	Posterior $p(\theta\|y)$
Normal (unknown mean) $y_i \sim N(\theta, \sigma)$, $i = 1, \ldots, n$	$N(\mu_0, \tau_0^2)$	Normal $N(\mu_1, \tau_1^2)$, $\frac{1}{\tau_1^2} = \frac{n}{\sigma^2} + \frac{1}{\tau_0^2}$, $\mu_1 = \tau_1^2(\frac{\mu_0}{\tau_0^2} + \frac{\bar{y}}{\sigma^2})$
Normal (unknown var) $y_i \sim N(\mu, \theta)$, $i = 1, \ldots, n$	$Inv - \chi^2(\nu_0, \sigma_0^2)$	Inv-χ^2 $Inv - \chi^2(\nu_0 + n, \frac{\nu_0\sigma_0^2 + \sum(y_i - \mu)^2}{\nu_0 + n})$
Poisson $y_i \sim P(\theta)$, $i = 1, \ldots, n$	$G(\alpha, \beta)$	Gamma $G(\alpha + n\bar{y}, \beta + n)$
Binomial $y \sim Bin(n, \theta)$	$Be(\alpha, \beta)$	Beta $Be(\alpha + y, \beta + n - y)$
Gamma $G(\nu, \theta)$	$G(\alpha, \beta)$	Gamma $G(\alpha + \nu, \beta + y)$
Negative Binomial $NB(m, \theta)$	$Be(\alpha, \beta)$	Beta $Be(\alpha + m, \beta + y)$
Multinomial $M_k(\theta_1, \ldots, \theta_k)$	$D(\alpha_1, \ldots, \alpha_k)$	Dirichlet $D(\alpha_1 + y_1, \ldots, \alpha_k + y_k)$