| $f(x \theta)$ | $\pi(\theta)$ | $\pi(\theta x)$ |
|-------------------------------|-------------------------------|---|
| Normal | Normal | |
| $\mathcal{N}(heta,\sigma^2)$ | $\int \mathcal{N}(\mu,	au^2)$ | $\int \mathcal{N}(\rho(\sigma^2\mu + \tau^2 x), \rho\sigma^2\tau^2) $ |
| | | $\rho^{-1} = \sigma^2 + \tau^2$ |
| Poisson | Gamma | |
| $\mathcal{P}(heta)$ | $\mathcal{G}(lpha,eta)$ | $\mathcal{G}(\alpha+x,\beta+1)$ |
| Gamma | Gamma | |
| $\mathcal{G}(u,	heta)$ | $\mathcal{G}(lpha,eta)$ | $\mathcal{G}(\alpha + \nu, \beta + x)$ |
| Binomial | Beta | |
| $\mathcal{B}(n, 	heta)$ | $\mathcal{B}e(\alpha, \beta)$ | $\boxed{\mathcal{B}e(\alpha+x,\beta+n-x)}$ |