

Bayesian Homework 1

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January 31, 2019

Chapter 1, Question 1a

$$\frac{\alpha + y}{\alpha + \beta + n} = \frac{y}{n} + \tau \left(\frac{\alpha}{\alpha + \beta} - \frac{y}{n} \right) \quad (1)$$

$$\frac{\alpha + y}{\alpha + \beta + n} - \frac{y}{n} = \tau \frac{\alpha}{\alpha + \beta} - \frac{y}{n} \quad (2)$$

$$\frac{n\alpha - \alpha y - \beta y}{(\alpha + \beta + n)n} = \tau \frac{n\alpha - \alpha y - \beta y}{(\alpha + \beta)n} \quad (3)$$

$$(4)$$