

Homework 6: Practice Problems, Exam II

STA-360/602, Spring 2019 (These are not to be turned in for credit)

Recommend completing by February 26, 2019

1. 3.14, part d in Hoff. (Unit information prior).
2. (Normal-Normal) Derive the posterior predictive density $p(x_{n+1}|x_{1:n})$ for the Normal–Normal model covered in lecture. Hint: There is an easy way to do this and a hard way. To make the problem easier, consider writing $X_{n+1} = \boldsymbol{\theta} + Z$ given $x_{1:n}$, where $Z \sim \mathcal{N}(0, \lambda^{-1})$.
3. Work through section 10.3 in the Hoff book. (Metropolis).

Make sure that you're familiar with Lab 6.