

Stat 352 Winter 2008
Assignment #4

This assignment is due at the beginning of class on Thursday, February 28, 2008.

- 1.** Construct an equal-tailed 90% Bayesian credible interval for θ using the posterior distribution given in Problem #2(b) on Midterm #1.
- 2.** Construct an equal-tailed 90% Bayesian credible interval for θ using the posterior distribution given in Problem #2(c) on Midterm #1.
- 3.** Construct an equal-tailed 90% Bayesian credible interval for θ using the posterior density given in Problem #4 on Midterm #1.
- 4.** Construct an equal-tailed 90% Bayesian credible interval for θ using the posterior distribution given in Problem #5 on Midterm #1. You may assume that $a = 3$, $b = 7$, and $y = 4$ was observed.
- 5.** Compute numerically the posterior mean given in Problem #7 on Midterm #1 assuming that $n = 8$ and $y = 5$. Can you determine a general formula for the posterior mean for arbitrary n and y ? (Ans: not easily)
- 6.** Create a midterm consisting of **four** problems that tests the material covered in lecture through February 7, 2008. Your exam should be designed to be completed in 50 minutes, and you must provide solutions.