

18.655 Problem Set 4 Spring 2016
Mathematical Statistics
Due Date: 3/4/2016

Problems from Bickel and Doksum, 2nd Ed. [*Chapter.Section.Problem*]

1. Problem 1.6.5
2. Problem 1.6.11
3. Problem 1.6.31
4. Problem 1.6.37 (reworded). Let X_1, \dots, X_n be i.i.d. as $X \sim N_p(\theta, \Sigma_0)$, where Σ_0 is known. Show that the conjugate prior generated by (1.6.20) is the $N_p(\eta_0, \tau_0^2 \Sigma_0)$ family, where η_0 varies freely in R^p , and $\tau_0^2 > 0$.

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