

Math 312 — Homework 13
(FOR FUN.)

Instructions.

From the book do the following problems:

- Pages 546–549: 10.91, 10.94, and 10.99.
- Hints:

10.94 Recall that for $X_i \stackrel{\text{iid}}{\sim} N(\mu, \sigma^2)$

$$\frac{\sum_{i=1}^n (x_i - \mu)^2}{\sigma_0^2} \sim \chi_n^2$$

10.99 Recall that $M_{\sum X_i}(s)$ suggests that $\sum(X_i) \sim \text{Pois}(n\lambda)$.