

STAT 5380 Assignment 6:
Likelihood based inference, MLE, asymptotics of MLEs, ARE calculations

1. TPE Problem 6.3.4.
2. TPE Problem 6.3.5.
3. TPE Problem 6.3.15(c).
4. TPE Problem 6.3.18.

Note: The problem statement should read as follows:

In Problem 6.3.15(c), with f the Cauchy density $\mathcal{C}(0, 1)$, the likelihood equation has a unique root $\hat{a}$ and $\sqrt{n}(\hat{a} - a) \xrightarrow{d} N(0, 2a^2)$.

5. TPE Problem 6.6.11.
6. TPE Problem 6.6.14.
7. TPE Problem 6.2.8.
8. TPE Problem 6.6.1.
9. TPE Problem 6.6.2.
10. TPE Problem 6.6.3.
11. TPE Problem 6.4.4.
12. TPE Problem 6.4.5.
13. TPE Problem 6.4.6.
14. TPE Problem 6.8.1(d)(a). [Note: the reference for the negative binomial should be p. 25.]