

Chapter 9: Interval Estimation

February 4, 2024

Exercise 9.1

$$\begin{aligned}P(L \leq \theta \leq U) &= P(L \leq \theta \leq U | L \leq U) \\&= 1 - P(L < \theta \text{ or } \theta > U | L \leq U) \\&= 1 - [P(L < \theta | L \leq U) + P(\theta > U | L \leq U) - P(U < \theta < L | L \leq U)] \\&= 1 - (\alpha_1 + \alpha_2 - 0) \\&= 1 - \alpha_1 - \alpha_2\end{aligned}$$