

Day 3

Problem 1

Let p be the proportion of people in Utah that love to run. In a random sample of size 100, suppose that 31 people love to run. Find a 50%, two-sided, approximate confidence interval for p that is NOT equal tailed.

Problem 2

Suppose that monthly enrollment in a particular clinical trial follows a $\text{POI}(\lambda)$ distribution. In the first 3 years, the trial enrolled 3600 subjects. Find a 90%, approximate lower confidence bound for λ . Note that the 10th percentile of a standard normal is about -1.28. *Hint: To enroll 3600 in 36 months, the trial must have enrolled an average of 100 subjects per month, so that outcome of the sample mean is 100 and the sample size is...*