

Session 5: Sampling Distributions

Exercises

1. What is the probability that a random sample ($n=49$) from a population of Seattle sixth graders has a mean between 4 and 6 days?
Population parameters of Seattle sixth graders: $\mu = 5.4$ days, $\sigma = 2.8$ days.
2. Suppose that a sample of $n=45$ second time mothers is taken rather than $n=30$ in the example on slide 20. The sample mean pregnancy length is the same, 279.5 days and the true standard deviation is 6 days. Calculate the 2-sided 95%CI for this sample.
3. How does the CI calculated in 2) compare to the 95%CI for the sample of $n=30$ (277.35, 281.65)?