# Practice: Confidence Intervals and Hypothesis Testing

1. Find the 95%, and 99% confidence intervals of a random sample of size 100 from a normal distribution with mean 27.75 and standard deviation of 4.

*95%: 26.966 – 28.534*

*99%: 26.718 – 28.782*

1. Find a 90% confidence interval with = 80, σ=10, n=100.

*78.35 – 81.65*

1. You want to rent an unfurnished one-bedroom apartment in Durham, NC next year. The mean monthly rent for a random sample of 60 apartments advertised on Craig’s List (a website that lists apartments for rent) is $1000. Assume a population standard deviation of $200. Construct a 95% confidence interval.

*949.4 – 1050.6*

1. Duncan Jones kept careful records of the fuel efficiency of his car. After the first 100 times he filled up the tank, he found the mean was 23.4 miles per gallon (mpg) with a population standard deviation of 0.9 mpg. Compute the 95 percent confidence interval for his mpg.

*23.2236 – 23.5764*