Equitable Equations: *Confidence intervals with the t-distribution*

Problem 1

In a simple random sample of 10 sales clerks at convenience stores in 1989, the mean salary was \$25,352.87 and the standard deviation was \$3,202.09. Compute a level 95% confidence interval for the population mean. Carefully justify your answer.

Problem 2

Using the *R* data set *mtcars*, construct a level 90% confidence interval for the mean horsepower of all cars (a) by direct computation and (b) using the `t.test` function. Confirm that your answers agree with one another.