Name:

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MATH 1342 Quiz 8.2

(1) A researcher thinks that the average salary of assistant professors is more than \$42,000. A sample of 30 assistant professors has a mean salary of \$43,260 and a standard deviation of \$5230. At $\alpha = 0.05$, test the claim that assistant professors earn more than \$42,000 a year.

(2) A supermarket sells rotisserie chicken at a fixed price per chicken rather than by the weight of the chicken. The store advertises that the average weight of their chickens is 4.6 pounds. A random sample of 30 of the store's chickens yielded the weights (in pounds) shown below. Test whether the populations mean weight of the chickens is different than 4.6 pounds. Use $\alpha = 0.1$. 4.4, 4.7, 4.6, 4.4, 4.5, 4.3, 4.6, 4.5, 4.6, 4.9, 4.6, 4.8, 4.3, 4.4, 4.7, 4.5, 4.2, 4.3, 4.1, 4.0, 4.5, 4.6, 4.2, 4.4, 4.7, 4.8, 5.0, 4.2, 4.1, and 4.5.