

Name:
PIN:

MATH 1342

Quiz 8.3

- (1) A researcher thinks that the average salary of assistant professors is more than \$45,000. A sample of 35 assistant professors has a mean salary of \$43,260 and a standard deviation of \$5230. Test the claim that assistant professors earn less than \$45,000 a year and report the observed significance level. Remember to clearly state the the null and alternative hypothesis.

- (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 and report the  $p$ -value. Remember to clearly state the the null and alternative hypothesis.

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.