Quiz 13.1A AP Statistics Name:

Pat wants to compare the cost of one- and two-bedroom apartments in the area of her college campus. She collects data for a random sample of 10 advertisements of each type. Here are the rents for the two-bedroom apartments (in dollars per month):

595, 500, 580, 650, 675, 675, 750, 500, 495, 670

Here are the rents for the one-bedroom apartments:

500, 650, 600, 505, 450, 550, 515, 495, 650, 395

1. Pat wonders if two-bedroom apartments rent for significantly more than one-bedroom apartments. Perform a significance test to answer her question. Follow the Inference Toolbox.

2. Find a 95% confidence interval for the additional cost of a second bedroom. Interpret your interval in the context of this problem.

Quiz 13.1B AP Statistics Name:

In a study of heart surgery, one issue was the effect of drugs called beta-blockers on the pulse rate of patients during surgery. The available subjects were divided at random into two groups of 30 patients each. One group received a beta-blocker; the other group received a placebo. The pulse rate of each patient at a critical point during the operation was recorded. The treatment group had mean 65.2 and standard deviation 7.8. For the control group, the mean was 70.3 and the standard deviation was 8.3.

1. Perform an appropriate significance test to see if beta-blockers reduce the pulse rate. Follow the Inference Toolbox.

2. Give a 99% confidence interval for the difference in mean pulse rates. Interpret the confidence interval you obtain.