Worksheet 9

1. A coach uses a new technique to train gymnasts. Seven gymnasts were randomly selected and their competition scores were recorded before and after the training. The results are shown below.

Subject	A	B	C	D	E	F	G
Before	9.5	9.7	9.6	9.7	9.4	9.5	9.5
After	9.6	9.9	9.6	9.6	9.5	9.8	9.3

Using a .01 level of significance, test the claim that the training technique is effective in raising their scores. Assume the differences are normally distributed.

2. A researcher finds that out of 230 dogs, 156 like chicken jerky. Of 120 cats, 73 like chicken jerky. At the 0.02 significance level, test the claim that the two proportions are equal. Assume that the samples are independent and that they have been randomly selected.