**For each of the following perform a hypothesis test. Be sure to complete all parts (Hypothesis, Assumptions, Testing, and Summary). You may use either the Rejection Region or the p-value approach.**

1) The mean waiting time for bus number 14 during peak hours used to be 10 minutes. A public bus company official claims that more buses are now in service and that the mean waiting time for bus number 14 during peak hours is now less than 10 minutes. Karen took bus number 14 during peak hours on 18 different random occasions. Her mean waiting time was 7.3 minutes with a standard deviation of 2 minutes. At the 0.01 significance level, test the claim that the mean is less than 10 minutes. Assume waiting times for bus 14 are approximately normally distributed

2. A supplier of 3.5" disks claims that no more than 2.5% of the disks are defective. In a random sample of 1000 disks, it is found that 3% are defective, but the supplier claims that this is only a sample fluctuation. At the 0.01 level of significance, do the data provide sufficient evidence that the percentage of defects exceeds 2.5%?