Name:

Quiz 3, Attempt 1

Suppose you have a random sample of size 13 from a normal population with unknown mean and a variance of 20. Follow the steps to creating a 70% one-sided upper confidence limit for the mean of the population. The outcome of the sample mean is 25.

Step 1: Write down a probability statement involving the sample mean.

Step 2: Isolate the population mean in the probability statement.

Step 3: Write down the random interval, which will contain the population mean with probability 70%.

Step 4: Write down the outcome of the random interval (interval estimator). This is a 70% confidence interval (interval estimate). Then write down the one-sided upper 70% confidence limit.

Quiz 1, Attempt 2

What is the distribution of the sample mean based on a sample of size 50 from a normally distributed population with mean of 130 and standard deviation of 70?