$\bar{X}$ = ________ S_X = _______ μ_0 = _________ α = ____% n = _____

Population ____

Quantitative Variable ____

Step I Identify Procedure:

We want to test the evidence against the claim that the mean for ____________________________________

in the population of _________________________________ (___) is equal to ________ (μ_0).

The null and alternative hypotheses are:

H_0: μ = _______

H_A: μ ◯_______

Step II Check Conditions:

* __________ ____________: A __________ __________ was conducted to insure every member of the population was equally likely to be selected.

* ____________ Sampling Distribution: The sampling distribution of all possible sample means has an approximately __________ shape because the sample was of sufficient size, over 30 (per the _________ __________ Theorem).

* _________________: The lack of replacement is not a problem in this case because the number of subjects in the population is more than _____ times the sample size.

Step III Perform Procedure:

Sketch the Sampling Distribution on the back of this page, and shade the P-value. Make it big and easy to read.

Sampling Distribution: Mean = ________ Standard Deviation = _________ Shape: Approximately ____________

t-statistic = $\dfrac{\bar{X} - \mu_0}{\frac{S_x}{\sqrt{n}}}$ = $\dfrac{\quad}{\_\_\_\_\_\_\_\_\_\_\_\_}$ = _______

P-Value = P($\bar{X}$ ◯_______ | μ = ______) = ______% compared to the Significance Level (___) of ___%

Step IV Interpretation:

We fail to reject the null hypothesis at the _____% significance level (___). The P-value of _______% shows that an observed sample mean as extreme as ________ (___) would be expected to occur _______% of the time, and thus mere chance could explain the difference between the sample mean and the hypothesized population mean. We cannot say that the mean for__________________________ in the population of ___________________________ is not equal to the reported mean of _______ (μ_0).

OR

We reject the null hypothesis at the _____% significance level (___). The P-value of _____% falls **(just below OR well below)** the significance level, thus there is **(moderate OR strong)** evidence that the alternative hypothesis is true, ______________ ____ (___) is ________ than ______.