

$\hat{p} = \underline{\quad}\%$

$p_0 = \underline{\quad}\%$

$\alpha = \underline{\quad}\%$

$n = \underline{\quad}$

Population _____

Focus Proportion _____

Step I Identify Procedure:

We want to test the evidence against the claim that the proportion of _____

in the population of _____ (____) is equal to _____% (p_0).

The null and alternative hypotheses are:

$H_0: p = \underline{\quad}\%$

$H_A: p \bigcirc \underline{\quad}\%$

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 proportions has an approximately _____ shape because:

$$\begin{aligned} n * \underline{\quad} &> \underline{\quad} \\ \underline{\quad} * \underline{\quad} &> \underline{\quad} \end{aligned}$$

$$\begin{aligned} n * (1 - \underline{\quad}) &> \underline{\quad} \\ \underline{\quad} * \underline{\quad} &> \underline{\quad} \end{aligned}$$

* _____: 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: Proportion = _____% Standard Deviation = $\frac{\sqrt{p(1-p)}}{\sqrt{n}}$ = _____ = _____%

Shape: Approximately _____

P-Value = $P(\hat{p} \bigcirc \underline{\quad}\% \mid p = \underline{\quad}\%) = \underline{\quad}\%$ 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 proportion as extreme as _____% (____) would be expected to occur _____% of the time, and thus mere chance could explain the difference between the sample proportion and hypothesized population proportion. We cannot say that the proportion of _____ in the population of _____ is not equal to the reported proportion of _____% (p_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 _____%.