Hypothesis Testing for Two Means, Two proportions, Matched Pairs

What type of test? (circle one)

Two proportions   Two means, independent samples   Two means, paired samples

What are the population parameters? (circle one) P_1 & P_2 μ_1 & μ_2 μ_d

What is the random variable? (circle one) $P'_1 - P'_2$ $\overline{X}_1 - \overline{X}_2$ $\overline{X}_d$

In words for this problem's scenario, CLEARLY describe the population parameter(s):

_____

_____

_____

_____

STEP 1:   Ho: _____   Ha: _____

Significance Level α = _____

STEP 2:   Distribution to use for the test:

Normal N(___ , _____)   *OR* t with df = _____

Calculator Test to use: 2 SamT Test   2 SamZTest   TTest   2PropZTest

In complete sentences, explain how you determined which distribution to use.

_____

_____

_____

Values of the Sample Statistics as appropriate for this test.

$\overline{x}_d$ = _____

OR $\overline{x}_1 - \overline{x}_2$ = ____ – ____ = _____

with s_1 = _____ n_1 = _____ s_2 = _____ n_2 = _____
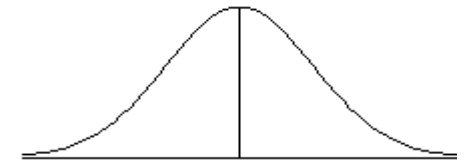
OR $p'_1 - p'_2$ = _____ – _____ = _____

with x_1 = _____ n_1 = _____ x_2 = _____ n_2 = _____

STEP 3: Test Statistic: indicate t or z ; state value: t or z (circle one) = _____
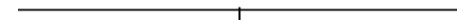
p-value = _____

Use the previous information to draw the graph of this situation.

Label & scale both horizontal axes (for the random variable and for the test statistic t or z)

Shade and label the region(s) corresponding to the p-value

STEP 4:

Indicate the decision ("reject Ho" or "do not reject Ho"), and the reason

decision   reason for decision

_____   _____

IS THE RESULT STATISTICALLY SIGNIFICANT?   _____

STEP 5: Write an appropriate conclusion, in the context of the problem using COMPLETE SENTENCES, stating the significance level and whether or not the sample data contain sufficient evidence to support the alternate hypothesis. **Conclusion**:

_____

_____

_____

_____

_____

_____