SOLUTION SHEET: Hypothesis Testing for Two Means, Paired Data, and Two Proportions

a. Ho: _____

b. Ha: _____
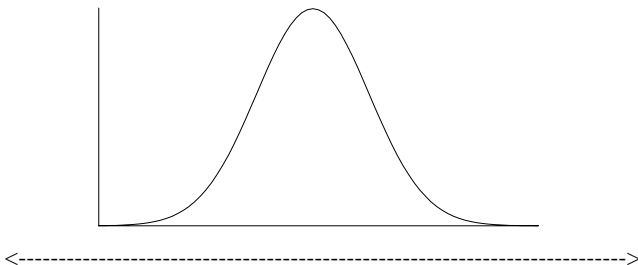
c. In words, CLEARLY state what your random variable $\overline{X}_1 - \overline{X}_2$, $P_1' - P_2'$ or $\overline{X}_d$ represents.

_____

_____

d. State the distribution to use for the test. _____

e. Test Statistic: t or z = _____

f. p-value = _____ In 1 – 2 complete sentences, explain what the p-value means for this problem.

_____

_____

_____

g. Use the previous information to sketch a picture of this situation. CLEARLY, label and scale the horizontal axis and shade the region(s) corresponding to the p-value.

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h. Indicate the correct decision ("reject" or "do not reject" the null hypothesis) and write appropriate conclusions, using COMPLETE SENTENCES.

alpha	decision	reason for decision
_____	_____	_____
		_____

Conclusion: _____

_____

_____

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