# Hypothesis Testing for Single Mean and Single Proportion

In words, describe what the population parameter $\mu$ or P represents:

_____

_____

_____

In words, describe what the random variable $\overline{X}$ or P' represents:

_____

_____

_____

*STEP 1:*   Ho: _____       Ha: _____

   Significance Level $\alpha$ =  _____

*STEP 2*: *DATA:* Proportion:  $x =$ _____   $n =$ _____   $p' =$ _____

   *OR* Mean:  $\overline{x}$ = _____ ;  $n =$ _____;  $\sigma =$ _____   or  $s =$ _____

   Circle test to use on calculator:    ZTest    TTest    1 Prop Z Test

   Distribution for the test:  N ( _____ , _____) *OR*  t with df = _____
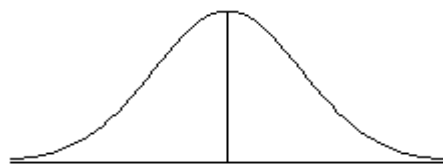
*STEP 3:  ANALYSIS OF THE DATA*

   **Test Statistic*:*  **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  $\overline{X}$ or P'
and for the test statistic t or z)

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



*STEP 3:  ANALYSIS OF THE DATA Continued*

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

 Interpretation of p-value: _____

_____

_____

_____

_____

*STEP 4:*
   Indicate the decision ("reject Ho" or "do not reject Ho"), and the reason

   **decision**                              **reason for decision**

   _____       _____

*STEP 5:*  Write an appropriate conclusion in the context of the problem, using
   COMPLETE SENTENCES to state whether or not there is sufficient evidence
   in the sample data to support the alternative hypothesis

**Conclusion**:

_____

_____

_____

_____

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