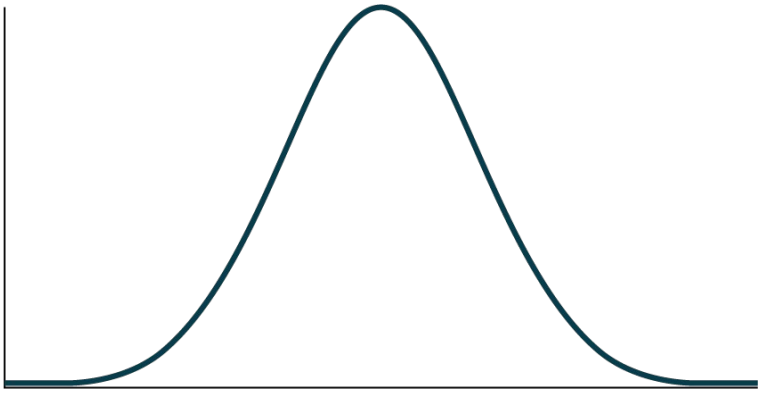
Hypothesis Testing with One Sample

Statistics

Hypothesis Test

Steps to Perform the Test

1. *S*tate the null hypothesis. H_0:
2. *S*tate the alternative hypothesis. H_a:
3. In words, **CLEARLY** state what your random variable $\bar{X}$ or P' represents.
4. State the distribution to use for the test.
5. What is the test statistic?
6. What is the *p*-value? In one or two complete sentences, explain what the *p*-value means for this problem.
7. 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.



8. Indicate the correct decision ("reject" or "do not reject" the null hypothesis), the reason for it, and write an appropriate conclusion, using **complete sentences**.
   a) Alpha:
   b) Decision:
   c) Reason for decision:
   d) Conclusion:

Additional Conclusion from the Sample

Confidence Intervals

1. Construct a 95% confidence interval for the true mean or proportion. Include a sketch of the graph of the situation. Label the point estimate and the lower and upper bounds of the confidence interval.