Sample Size for p:

$\diamond\ n \geq \left(\frac{z_{\alpha/2}}{ME}\right)^2 \cdot p\,(1-p)$

Confidence Level	$z_{\alpha/2}$
90%	1.65
95%	1.96
98%	2.33
99%	2.58

Sample Size for μ:

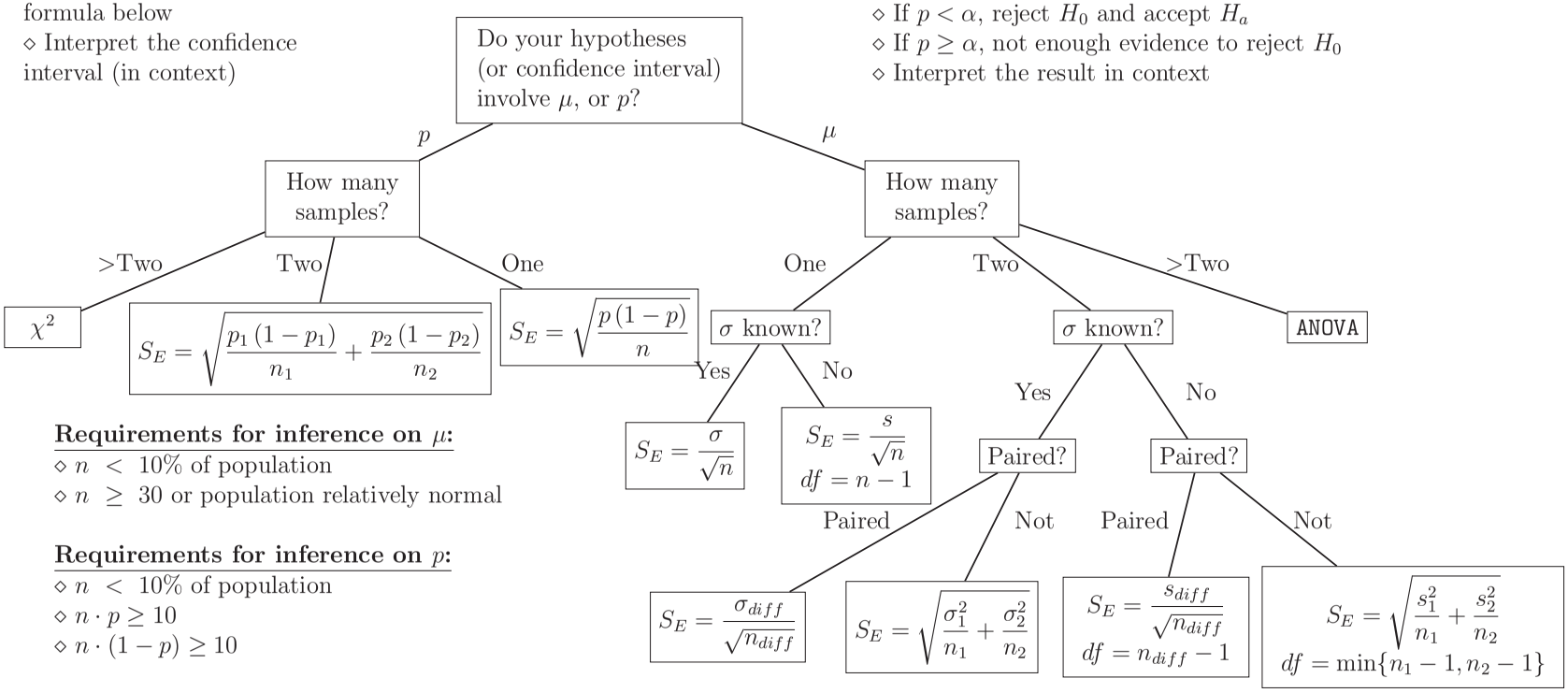
$\diamond\ n \geq \left(\frac{z_{\alpha/2} \cdot \sigma}{ME}\right)^2$

Confidence Intervals:

$\diamond$ Identify confidence level and corresponding critical value
$\diamond$ Build confidence interval with formula below
$\diamond$ Interpret the confidence interval (in context)

Hypothesis Testing:

$\diamond$ Write the hypotheses in words and symbols
$\diamond$ Set the level of significance (α)
$\diamond$ Find test statistic (z,t,F,χ^2) and p-value
$\diamond$ If $p < \alpha$, reject H_0 and accept H_a
$\diamond$ If $p \geq \alpha$, not enough evidence to reject H_0
$\diamond$ Interpret the result in context



Requirements for inference on μ:

$\diamond\ n < 10\%$ of population
$\diamond\ n \geq 30$ or population relatively normal

Requirements for inference on p:

$\diamond\ n < 10\%$ of population
$\diamond\ n \cdot p \geq 10$
$\diamond\ n \cdot (1-p) \geq 10$

$$\text{Test Statistic} = \frac{(\text{point estimate}) - (\text{null value})}{\text{Standard Error}}$$

$$\text{Confidence Interval} : (\text{point estimate}) \pm \underbrace{\left(\begin{array}{c}\text{Critical}\\ \text{Value}\end{array}\right) \cdot \left(\begin{array}{c}\text{Standard}\\ \text{Error}\end{array}\right)}_{\text{Margin of Error}}$$