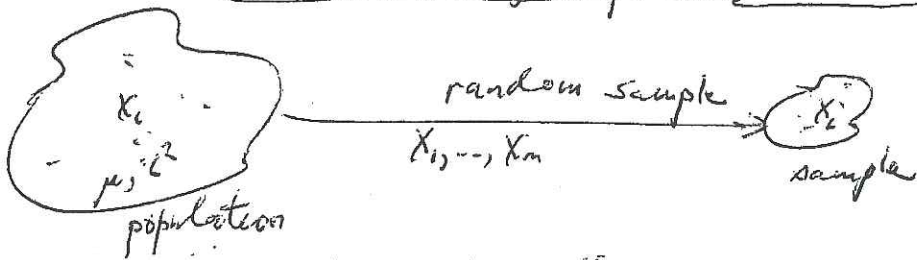
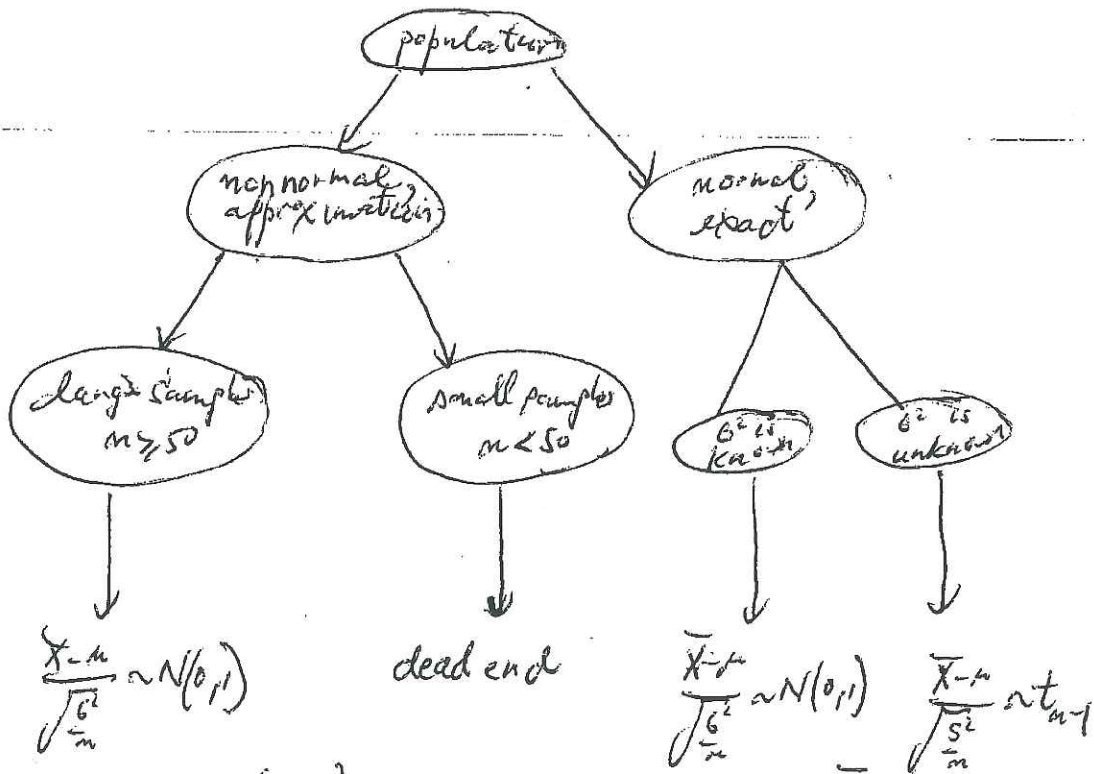


Flow Chart of Important Results



Each X_i has the same probability model and the X_i are independent.
Need probability model for \bar{X} .



- NOTES.
- (1) The 'best' estimator of μ is \bar{X} .
 - (2) For Bernoulli populations, $\mu = p$, $\sigma^2 = p(1-p)$.
If $np \geq 5$ and $n(1-p) \geq 5$,

$$\frac{\bar{X} - p}{\sqrt{\frac{p(1-p)}{n}}} \sim N(0,1) \text{ approximately}$$
 - (3) $\sqrt{\frac{\sigma^2}{n}}$ or $\sqrt{\frac{p(1-p)}{n}}$ is the standard error (SE) of \bar{X} ,
 $\sqrt{\frac{S^2}{n}}$ or $\sqrt{\frac{\bar{X}(1-\bar{X})}{n}}$ is the "estimated" " " " "