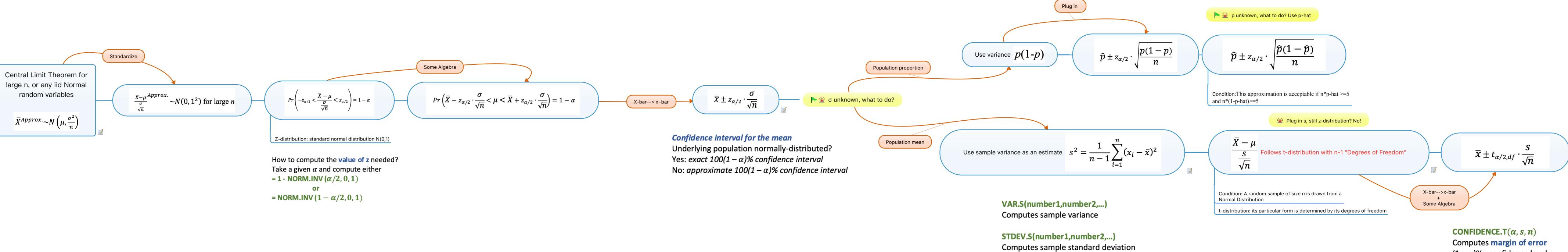
## MAST 6201 MIND MAP 2

Yue Li and Edward Fox

$ar{X}$ / X-bar	Estimator, a random variable for the mean of a sample
$ar{x}$ /x-bar	Estimate, computed mean of a particular sample
$\mu$	true population mean
$\sigma^2$	true variance of the population we are sampling from
$\sigma$	true population standard deviation (almost never know)
n	sample size
$\hat{p}$ /p-hat	percentage estimated from the sample
p	true population percentage
$s^2$	sample variance
S	sample standard deviation
$\alpha$	the probability that the true mean falls outside the confidence interval
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Computes margin of error  $(1-\alpha)\%$ : confidence level s: sample standard deviation n: sample size.

To calculate the confidence interval, add/subtract the margin of error

to/from the sample mean

## Standard Error

The standard error (SE) of a statistic (usually an estimate of a parameter) is the standard deviation of its sampling distribution or an estimate of that standard deviation.