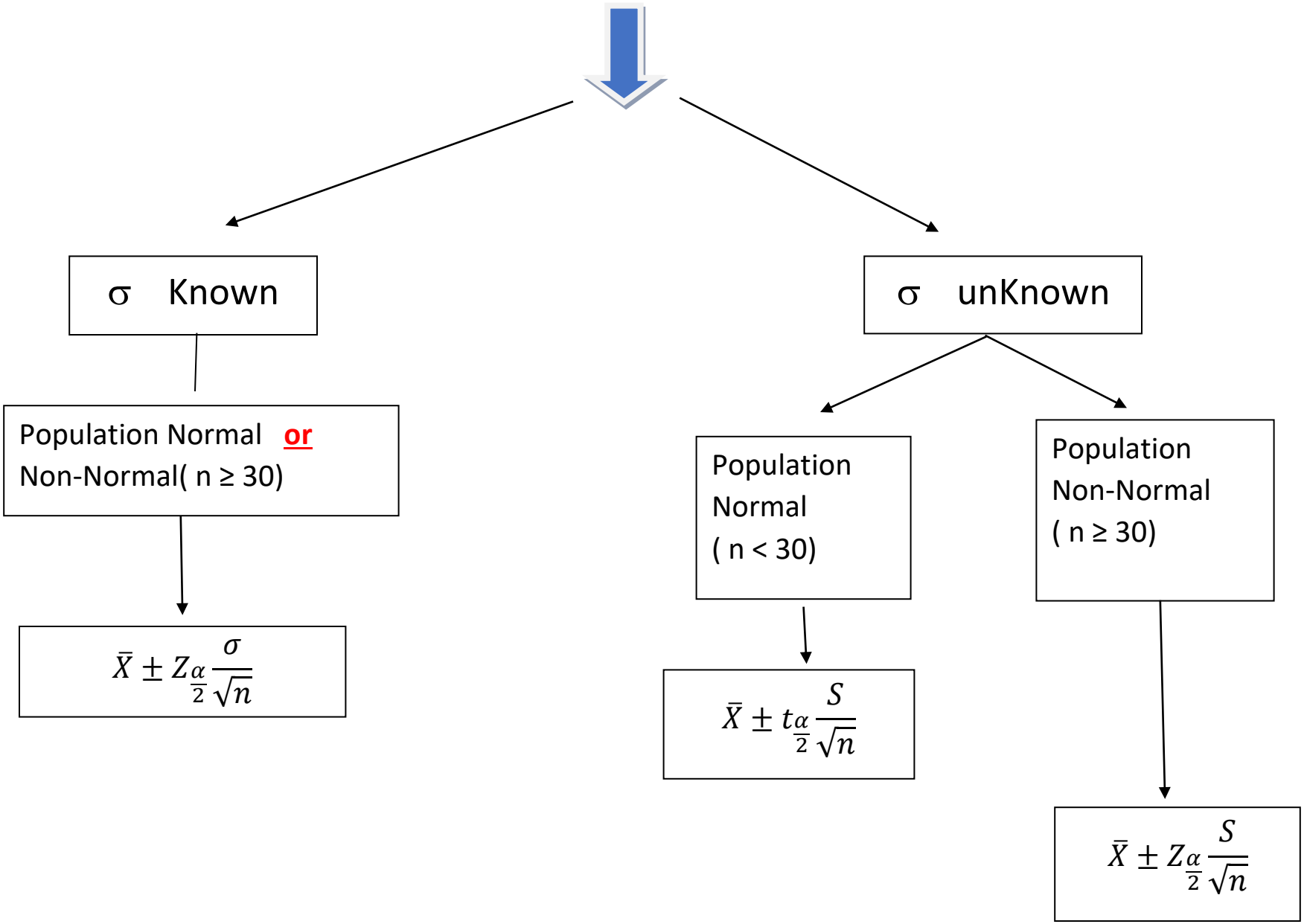
Confident interval for population mean μ



Confident interval for population two means $(\mu_1 - \mu_2)$

σ_1, σ_2 Known

Population Normal **or** Non-Normal($n_1 \geq 30, n_2 \geq 30$)

$$(\bar{X}_1 - \bar{X}_2) \pm Z_{\frac{\alpha}{2}} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$$

σ_1, σ_2 unKnown

Population Normal ($n_1 < 30, n_2 < 30$) With equal variances

$$(\bar{X}_1 - \bar{X}_2) \pm Z_{\frac{\alpha}{2}} \sqrt{\frac{S_P^2}{n_1} + \frac{S_P^2}{n_2}}$$

Pooled variance

$$S_P^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Where,

Df=$n_1 + n_2 - 2$

Population Non-Normal ($n_1 \geq 30, n_2 \geq 30$)

$$(\bar{X}_1 - \bar{X}_2) \pm Z_{\frac{\alpha}{2}} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}$$