

▪ **Z values (for standard normal distribution):**

$Z_{0.95} = 1.645$
$Z_{0.975} = 1.96$
$Z_{0.995} = 2.575$
$Z_{0.99} = 2.33$
$Z_{0.97} = 1.88$
$Z_{0.90} = 1.285$
$Z_{0.98} = 2.055$

▪ **Formulae of (324) Stat:**

$\bar{X} \pm Z_{1-\frac{\alpha}{2}} \frac{\sigma}{\sqrt{n}}$	$Z = \frac{\bar{x} - \mu_0}{\sigma/\sqrt{n}}$
$\bar{X} \pm t_{\frac{\alpha}{2}, n-1} \frac{s}{\sqrt{n}}$	$T = \frac{\bar{x} - \mu_0}{s/\sqrt{n}}$
$\bar{X}_1 - \bar{X}_2 \pm Z_{1-\frac{\alpha}{2}} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$	$Z = \frac{\bar{x}_1 - \bar{x}_2 - d}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$
$\bar{X}_1 - \bar{X}_2 \pm t_{\frac{\alpha}{2}, n_1+n_2-2} S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}$	$T = \frac{\bar{x}_1 - \bar{x}_2 - d}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$
$n = \left(\frac{Z_{1-\frac{\alpha}{2}} \sigma}{e} \right)^2$	$S_p = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$
$\hat{p} \pm Z_{1-\frac{\alpha}{2}} \sqrt{\frac{\hat{p}\hat{q}}{n}}$	$Z = \frac{\hat{p} - p_0}{\sqrt{\frac{p_0 q_0}{n}}}$
$\hat{p}_1 - \hat{p}_2 \pm Z_{1-\frac{\alpha}{2}} \sqrt{\frac{\hat{p}_1 \hat{q}_1}{n_1} + \frac{\hat{p}_2 \hat{q}_2}{n_2}}$	$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\hat{p}\hat{q} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$
$n = \frac{Z_{1-\frac{\alpha}{2}}^2 \hat{p}\hat{q}}{e^2}$	$\hat{p} = \frac{X_1 + X_2}{n_1 + n_2} = \frac{n_1 \hat{p}_1 + n_2 \hat{p}_2}{n_1 + n_2}$