	Case Description	Test Statistics	Variance	Degree of Freedom	Confidence Interval
1.		$Z=\frac{(\overline{X}_1-\overline{X}_2)-(\mu_1-\mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1}+\frac{\sigma_2^2}{n_2}}}$	-	-	$(\overline{X}_1-\overline{X}_2)\pm Z\sqrt{\frac{\sigma_1^2}{n_1}+\frac{\sigma_2^2}{n_2}}$
2.		$t=\frac{(\overline{X}_1-\overline{X}_2)-(\mu_1-\mu_2)}{\sqrt{S_p^2\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$	Pooled Variance $S_p^2=\frac{(n_1-1)S_1^2+(n_2-1)S_2^2}{(n_1-1)+(n_2-1)}$	n_1+n_2-2	$(\overline{X}_1-\overline{X}_2)\pm t_{n_1+n_2-2}\sqrt{S_p^2\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}$
3.		$t=\frac{(\overline{X}_1-\overline{X}_2)-(\mu_1-\mu_2)}{\sqrt{\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}}}$	Separate variance	Integer portion of $\nu=\frac{\left(\frac{S_1^2}{n_1}+\frac{S_2^2}{n_2}\right)^2}{\frac{\left(\frac{S_1^2}{n_1}\right)^2}{n_1-1}+\frac{\left(\frac{S_2^2}{n_2}\right)^2}{n_2-1}}$	-
4.		$Z=\frac{\overline{D}-\mu_D}{\frac{\sigma_D}{\sqrt{n}}}$	-	-	-
5.		$t=\frac{\overline{D}-\mu_D}{\frac{S_D}{\sqrt{n}}}$	$S_D=\sqrt{\frac{\sum_{i=1}^{n}(D_i-\overline{D})^2}{n-1}}$	-	$\overline{D}\pm t_{n-1}\frac{S_D}{\sqrt{n}}$
6.		$Z=\frac{(p_1-p_2)-(\pi_1-\pi_2)}{\sqrt{\overline{p}(1-\overline{p})\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$	$\overline{p}=\frac{X_1+X_2}{n_1+n_2}$	-	$(p_1-p_2)\pm Z\sqrt{\frac{p_1(1-p_1)}{n_1}+\frac{p_2(1-p_2)}{n_2}}$
7.		$F=\frac{S_1^2}{S_2^2}$	-	-	-