The case of one population

	$\hat{p}$	$\bar{X}$	
		σ is known	σ is unknown
Mean value	p	μ	μ
Variance	$\frac{p(1-p)}{n}$	$\frac{\sigma^2}{n}$	$\frac{\sigma^2}{n}$
Standard Error	$\sqrt{\frac{p(1-p)}{n}}$	$\frac{\sigma}{\sqrt{n}}$	$\frac{\sigma}{\sqrt{n}}$
Test Statistic	$\frac{\hat{p}-p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$	$\frac{\bar{X}-\mu_0}{\frac{\sigma}{\sqrt{n}}}$	$\frac{\bar{X}-\mu_0}{\frac{S}{\sqrt{n}}}$
Distribution model	$N(0,1)$	$N(0,1)$	t_{n-1}
Confidence Interval	$\hat{p} \pm z^* \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$	$\bar{X} \pm z^* \times \frac{\sigma}{\sqrt{n}}$	$\bar{X} \pm t^* \times \frac{S}{\sqrt{n}}$

	Means of two populations		**Proportion** of two populations
	Independent:	Paired:	Independent
	$\bar{X}_1 - \bar{X}_2$	$\bar{d}$	$\hat{p}_1 - \hat{p}_2$
Mean value	$\mu_1 - \mu_2$	$\mu_1 - \mu_2$	$p_1 - \mathrm{p}_2$
Variance	$\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}$	$\frac{\sigma_d^2}{n}$	$\frac{p_1(1-p_1)}{n_1} + \frac{p_2(1-p_2)}{n_2}$
Standard Error	$\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}$	$\frac{\sigma_d}{\sqrt{n}}$	$\sqrt{\frac{p_1(1-p_1)}{n_1} + \frac{p_2(1-p_2)}{n_2}}$
Test Statistic	$\frac{(\bar{X}_1 - \bar{X}_2) - \Delta_0}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$	$\frac{\bar{d} - \Delta_0}{\frac{S_d}{\sqrt{n}}}$	$\frac{(\hat{p}_1 - \hat{p}_2)}{\sqrt{\hat{p}_{pooled}(1-\hat{p}_{pooled})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$
Distribution model	t_v	t_{n-1}	$N(0,1)$
Confidence Interval	$(\bar{X}_1 - \bar{X}_2) \pm t^* \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}$	$\bar{d} \pm t^* \times \frac{S_d}{\sqrt{n}}$	$(\hat{p}_1 - \hat{p}_2) \pm z^* \sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}$