	Means Large samples	Proportion Large samples
Alternatives	$\mu_1 \; < \neq > \mu_2$	$p_1 \; < \neq > p_2$
Conditions	We have independent, random observations from two populations, and there are enough observations in **each** sample that we can use the Central Limit Theorem.	We have independent, random observations from two binomial experiments, and there are enough trials in **each** experiment that we can use the Central Limit Theorem.
Distribution	Z	Z
TS	$\frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$	$\frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}}$

	Means - Small sample(s)
Alternatives	$\mu_1 \ < \neq > \mu_2$
Conditions	We have independent, random observations from two normally distributed populations and the population variances are unknown.
Distribution	t
df	$\frac{\left(\frac{s_1^2}{n_1}+\frac{s_2^2}{n_2}\right)^2}{\frac{\left(\frac{s_1^2}{n_1}\right)^2}{n_1-1}+\frac{\left(\frac{s_2^2}{n_2}\right)^2}{n_2-1}}$
TS	$\frac{\bar{X}_1-\bar{X}_2}{\sqrt{\frac{s_1^2}{n_1}+\frac{s_2^2}{n_2}}}$