

Inference About?	1 or 2?	Model & df	Parameter	Statistic	Conditions	Confidence Interval	Test Statistic
PROPORTIONS	1	Z	P	\hat{p}	$n\hat{p} > 10$ $n(1-\hat{p}) > 10$ INT. TEST	$\hat{p} \pm z^* \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$	$z = \frac{\hat{p} - P}{\sqrt{\frac{P(1-P)}{n}}}$
PROPORTIONS	2	Z	$p_1 - p_2$	$\hat{p}_1 - \hat{p}_2$	$n_1\hat{p}_1 \& n_1(1-\hat{p}_1) > 10$ $n_2\hat{p}_2 \& n_2(1-\hat{p}_2) > 10$ INT. TEST	$\hat{p}_1 - \hat{p}_2 \pm z^* \sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}$	$z = \frac{\hat{p}_1 - \hat{p}_2 - 0}{\sqrt{\hat{p}_c(1-\hat{p}_c)(\frac{1}{n_1} + \frac{1}{n_2})}}$
Means	1	t df = n-1	μ	\bar{x}	n > 30 OR GRAPH	$\bar{x} \pm t^* s/\sqrt{n}$	$t = \frac{\bar{x} - \mu}{s/\sqrt{n}}$
Means	1 matched	t df = n-1	μ_D	\bar{x}_D	n > 30 OR GRAPH	$\bar{x}_D \pm t^* s/\sqrt{n}$	$t = \frac{\bar{x}_D - \mu_D}{s/\sqrt{n}}$ ← USUALLY ZERO
Means	2	t df = tech	$\mu_1 - \mu_2$	$\bar{x}_1 - \bar{x}_2$	$n_1 \& n_2 > 30$ OR GRAPHS	$\bar{x}_1 - \bar{x}_2 \pm t^* \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}$	$t = \frac{(\bar{x}_1 - \bar{x}_2) - 0}{\sqrt{s_1^2/n_1 + s_2^2/n_2}}$
GOODNESS-OF-FIT DISTRIBUTION	1	χ^2 #CATG - 1			EACH EXP'D > 5	H_0 : %'S = GIVEN H_A : AT LEAST 1 DOES NOT	$\chi^2 = \sum \frac{(O-E)^2}{E}$
HOMOGENEITY DISTRIBUTION	MANY GROUPS	χ^2 (r-1)(c-1)			EACH EXP'D > 5	H_0 : No ASSOC H_A : IS ASSOC	$\chi^2 = \sum \frac{(O-E)^2}{E}$
INDEPENDENCE (2 VARS)	1	χ^2 (r-1)(c-1)			EACH EXP'D > 5	H_0 : INDEP. H_A : DEP.	$\chi^2 = \sum \frac{(O-E)^2}{E}$
ASSOCIATION 2 VARS	1	t df = n-2	B	b	RESIDUALS SCATTERED & NORMAL	$b \pm t^* SE$	$t = \frac{b-0}{SE}$ $H_0: B=0$ $H_A: B \neq 0$

RANDOM SAMPLE/ASSIGNMENT
n < 10% POPULATION (IF SAMPLE)