One proprtion

$H_0: p = p_0; H_1: p \neq p_0$ (< lub >)

Sample	Statistics
$n \geq 50$	$Z = \dfrac{\hat{p} - p_0}{\sqrt{\dfrac{p_0 q_0}{n}}} \sim N(0,1)$, $\hat{p} = \dfrac{k}{n}$

Two proportions

$H_0: p_1 = p_2; H_1: p_1 \neq p_2$ (< lub >)

Sample	Unconnected samples	Connected samples $n = n_1 = n_2$
Large	$n_1 \geq 50$ i $n_2 \geq 50$ $Z = \dfrac{\hat{p}_1 - \hat{p}_2}{\sqrt{\hat{p}(1-\hat{p})\left(\dfrac{1}{n_1} + \dfrac{1}{n_2}\right)}} \sim N(0,1)$ $\hat{p}_1 = \dfrac{k_1}{n_1}$, $\hat{p}_2 = \dfrac{k_2}{n_2}$, $\hat{p} = \dfrac{k_1 + k_2}{n_1 + n_2}$	$n \geq 20$ $Z = \dfrac{b-c}{\sqrt{b+c}} \sim N(0,1)$ I próba / II próba: a, b, c, d
Small	$a \geq 5 \wedge b \geq 5 \wedge c \geq 5 \wedge d \geq 5 \wedge n \geq 40$ $\chi^2 = \dfrac{n(ad-bc)^2}{(a+b)(c+d)(a+c)(b+d)}$ $a < 5 \vee b < 5 \vee c < 5 \vee d < 5 \vee n < 40$ $\chi^2 = \dfrac{n(\lvert ad - bc \rvert - \frac{n}{2})^2}{(a+b)(c+d)(a+c)(b+d)}$ ~ chi-kwadrat $v = 1$ (I, II; a, b, c, d)	$\chi^2 = \dfrac{(b-c)^2}{b+c}$, $b \geq 5 \wedge c \geq 5$ $\chi^2 = \dfrac{(\lvert b-c \rvert - 1)^2}{b+c}$, $b < 5 \vee c < 5$ ~ chi-kwadrat $v = 1$

One variance

$H_0: \sigma^2 = \sigma_o^2; H_1: \sigma^2 \neq \sigma_o^2$ (< lub >)

Sample	Statistics
$n > 30$	$Z = \sqrt{2\chi^2} - \sqrt{2v-1} \sim N(0,1)$
$n \leq 30$	$\chi^2 = \dfrac{nS^2}{\sigma_o^2} = \dfrac{(n-1)\hat{S}^2}{\sigma_o^2}$ ~ chi-kwadrat $v = n-1$

Two variances

$H_0: \sigma_1^2 = \sigma_2^2; H_1: \sigma_1^2 \neq \sigma_2^2$ (< lub >)

Sample	Unconnected samples	Connected samples $n = n_1 = n_2$
$n_1 > 30$ and $n_2 > 30$	$Z = \dfrac{S_1 - S_2}{\sqrt{\dfrac{S_1^2}{2n_1} + \dfrac{S_2^2}{2n_2}}} \sim N(0,1)$	$Z = \dfrac{S_1^2 - S_2^2}{2S_1 S_2}\sqrt{\dfrac{n-2}{1-r^2}} \sim N(0,1)$
$n_1 \leq 30$ or $n_2 \leq 30$	$F = \dfrac{\hat{S}_1^2}{\hat{S}_2^2} = \dfrac{\dfrac{n_1}{n_1 - 1} \cdot S_1^2}{\dfrac{n_2}{n_2 - 1} \cdot S_2^2}$ ~ F-Snedecora $v_1 = n_1 - 1$ i $v_2 = n_2 - 1$	Test Morgana $t = \dfrac{S_1^2 - S_2^2}{2S_1 S_2}\sqrt{\dfrac{n-2}{1-r^2}}$ ~ t-Studenta $v = n-2$