Testy hypotéz - dvouvýběrové

rozdělení náh. vel.	testovaná hypotéza H	testovaná alternativa A	testové kritérium	kritický obor W_α	pozn.
	$\sigma_1^2 = \sigma_2^2$	$\sigma_1^2 \neq \sigma_2^2$ $\sigma_1^2 > \sigma_2^2$ $\sigma_1^2 < \sigma_2^2$	$F = \frac{s_1^2}{s_2^2}$	$F \leq F_{\alpha/2}(\nu_1,\nu_2) \vee F \geq F_{1-\alpha/2}(\nu_1,\nu_2)$ $F \geq F_{1-\alpha}(\nu_1,\nu_2)$ $F \leq F_{\alpha}(\nu_1,\nu_2)$	$\nu_1 = n_1 - 1,\ \nu_2 = n_2 - 1$ pro $P < 0{,}5$: $F_P(\nu_1,\nu_2) = \frac{1}{F_{1-P}(\nu_2,\nu_1)}$
X...N(μ_1, σ_1^2) Y...N(μ_2, σ_2^2) nezávislé	$\mu_1 = \mu_2$ za předpokladu $\sigma_1^2 = \sigma_2^2$	$\mu_1 \neq \mu_2$ $\mu_1 > \mu_2$ $\mu_1 < \mu_2$	$t = \frac{\overline{x} - \overline{y}}{S}\sqrt{\frac{n_1 \cdot n_2}{n_1 + n_2}}$	$\lvert t \rvert \geq t_{1-\alpha/2}(\nu)$ $t \geq t_{1-\alpha}(\nu)$ $t \leq -t_{1-\alpha}(\nu)$	$\nu = n_1 + n_2 - 2$ $S = \left[\frac{(n_1-1)\cdot s_1^2 + (n_2-1)\cdot s_2^2}{n_1+n_2-2}\right]^{\frac{1}{2}}$
	$\mu_1 = \mu_2$ za předpokladu $\sigma_1^2 \neq \sigma_2^2$	$\mu_1 \neq \mu_2$ $\mu_1 > \mu_2$ $\mu_1 < \mu_2$	$t = \frac{\overline{x} - \overline{y}}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$	$\lvert t \rvert \geq t_{1-\alpha/2}(\nu)$ $t \geq t_{1-\alpha}(\nu)$ $t \leq -t_{1-\alpha}(\nu)$	$\nu \approx \frac{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^2}{\frac{1}{n_1-1}\left(\frac{s_1^2}{n_1}\right)^2 + \frac{1}{n_2-1}\left(\frac{s_2^2}{n_2}\right)^2}$
X...libovolné Y...libovolné nezávislé	$\mu_1 = \mu_2$	$\mu_1 \neq \mu_2$ $\mu_1 > \mu_2$ $\mu_1 < \mu_2$	$u = \frac{\overline{x} - \overline{y}}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$	$\lvert u \rvert \geq u_{1-\alpha/2}$ $u \geq u_{1-\alpha}$ $u \leq -u_{1-\alpha}$	pro dost. velké n_1, n_2
X...N(μ_1, σ_1^2) Y...N(μ_2, σ_2^2) závislé	$\mu_1 = \mu_2$	$\mu_1 \neq \mu_2$ $\mu_1 > \mu_2$ $\mu_1 < \mu_2$	$t = \frac{\overline{d}}{s_d} \cdot \sqrt{n}$	$\lvert t \rvert \geq t_{1-\alpha/2}(\nu)$ $t \geq t_{1-\alpha}(\nu)$ $t \leq -t_{1-\alpha}(\nu)$	$\nu = n - 1$, pro $\nu > 30$: $t_P(\nu) \approx u_P$ $d_i = x_i - y_i$ $\overline{d}$ ... průměr diferencí d_i s_d ... jejich výběrová odchylka
X…A(π_1) Y…A(π_2) nezávislé	$\pi_1 = \pi_2$	$\pi_1 \neq \pi_2$ $\pi_1 > \pi_2$ $\pi_1 < \pi_2$	$u = \frac{p_1 - p_2}{\sqrt{\frac{p_1(1-p_1)}{n_1} + \frac{p_2(1-p_2)}{n_2}}}$	$\lvert u \rvert \geq u_{1-\alpha/2}$ $u \geq u_{1-\alpha}$ $u \leq -u_{1-\alpha}$	pro dost. velké n_1, n_2 pro $n_1 p_1(1 - p_1) > 9$ a $n_2 p_2(1 - p_2) > 9$