

ESTIMAZIOA ETA HIPOTESI-KONTRASTEAK BURUTZEKO					
Populazioa	Lagina	Konfiantza-tarteak	Hipotesi-nulua	Estatistikoa	Onarpen- eremua
Normala σ ezaguna		$I_{\mu}^{1-\alpha} = \left[\bar{x} - z_{\alpha/2} \frac{\sigma}{\sqrt{n}}, \bar{x} + z_{\alpha/2} \frac{\sigma}{\sqrt{n}} \right]$	$H_0: \mu = \mu_o$ $H_0: \mu \geq \mu_o$ $H_0: \mu \leq \mu_o$	$\frac{\bar{x} - \mu_o}{\sigma/\sqrt{n}}$	$[-z_{\alpha/2}, z_{\alpha/2}]$ $[-z_{\alpha}, \infty)$ $(-\infty, z_{\alpha}]$
Normala σ ezezaguna	$n \geq 30$	$I_{\mu}^{1-\alpha} = \left[\bar{x} - z_{\alpha/2} \frac{S}{\sqrt{n}}, \bar{x} + z_{\alpha/2} \frac{S}{\sqrt{n}} \right]$	$H_0: \mu = \mu_o$ $H_0: \mu \geq \mu_o$ $H_0: \mu \leq \mu_o$	$\frac{\bar{x} - \mu_o}{S/\sqrt{n}}$	$[-z_{\alpha/2}, z_{\alpha/2}]$ $[-z_{\alpha}, \infty)$ $(-\infty, z_{\alpha}]$
Normala σ ezezaguna	$n < 30$	$I_{\mu}^{1-\alpha} = \left[\bar{x} - t_{\alpha/2, n-1} \frac{S}{\sqrt{n}}, \bar{x} + t_{\alpha/2, n-1} \frac{S}{\sqrt{n}} \right]$	$H_0: \mu = \mu_o$ $H_0: \mu \geq \mu_o$ $H_0: \mu \leq \mu_o$	$\frac{\bar{x} - \mu_o}{S/\sqrt{n}}$	$[-t_{\alpha/2, n-1}, t_{\alpha/2, n-1}]$ $[-t_{\alpha; n-1}, \infty)$ $(-\infty, t_{\alpha; n-1}]$
Normalak, independenteak σ_1, σ_2 ezagunak		$I_{\mu_1 - \mu_2}^{1-\alpha} = \left[(\bar{x}_1 - \bar{x}_2) - z_{\alpha/2} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}, (\bar{x}_1 - \bar{x}_2) + z_{\alpha/2} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}} \right]$	$H_0: \mu_1 - \mu_2 = 0$ $H_0: \mu_1 - \mu_2 \geq 0$ $H_0: \mu_1 - \mu_2 \leq 0$	$\frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$	$[-z_{\alpha/2}, z_{\alpha/2}]$ $[-z_{\alpha}, \infty)$ $(-\infty, z_{\alpha}]$
Normalak, independenteak σ_1, σ_2 ezezagunak	$n_1 \geq 30$ $n_2 \geq 30$	$I_{\mu_1 - \mu_2}^{1-\alpha} = \left[(\bar{x}_1 - \bar{x}_2) - z_{\alpha/2} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}, (\bar{x}_1 - \bar{x}_2) + z_{\alpha/2} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}} \right]$	$H_0: \mu_1 - \mu_2 = 0$ $H_0: \mu_1 - \mu_2 \geq 0$ $H_0: \mu_1 - \mu_2 \leq 0$	$\frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$	$[-z_{\alpha/2}, z_{\alpha/2}]$ $[-z_{\alpha}, \infty)$ $(-\infty, z_{\alpha}]$
Normalak, independenteak σ_1, σ_2 ezezagunak $\sigma_1 = \sigma_2$	$n_1 < 30$ $n_2 < 30$	$I_{\mu_1 - \mu_2}^{1-\alpha} = \left[(\bar{x}_1 - \bar{x}_2) \mp t_{\alpha/2, n_1+n_2-2} \sqrt{\frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1+n_2-2} \frac{1}{n_1} + \frac{1}{n_2}} \right]$	$H_0: \mu_1 - \mu_2 = 0$ $H_0: \mu_1 - \mu_2 \geq 0$ $H_0: \mu_1 - \mu_2 \leq 0$	$\frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1+n_2-2} \frac{1}{n_1} + \frac{1}{n_2}}}$	$[-t_{\alpha/2, n_1+n_2-2}, t_{\alpha/2, n_1+n_2-2}]$ $[-t_{\alpha; n_1+n_2-2}, \infty)$ $(-\infty, t_{\alpha; n_1+n_2-2}]$
Normalak, independenteak σ_1, σ_2 ezezagunak $\sigma_1 \neq \sigma_2$	$n_1 < 30$ $n_2 < 30$	$I_{\mu_1 - \mu_2}^{1-\alpha} = \left[(\bar{x}_1 - \bar{x}_2) \mp t_{\alpha/2, \nu} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}} \right], \nu = \frac{\left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2} \right)^2}{\frac{(S_1^2/n_1)^2}{n_1+1} + \frac{(S_2^2/n_2)^2}{n_2+1}} - 2$	$H_0: \mu_1 - \mu_2 = 0$ $H_0: \mu_1 - \mu_2 \geq 0$ $H_0: \mu_1 - \mu_2 \leq 0$	$\frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$	$[-t_{\alpha/2, \nu}, t_{\alpha/2, \nu}]$ $[-t_{\alpha; \nu}, \infty)$ $(-\infty, t_{\alpha; \nu}]$
Normala		$I_{\sigma^2}^{1-\alpha} = \left[\frac{(n-1)S^2}{\chi_{\alpha/2, n-1}^2}, \frac{(n-1)S^2}{\chi_{1-\alpha/2, n-1}^2} \right]$	$H_0: \sigma^2 = \sigma_o^2$ $H_0: \sigma^2 \geq \sigma_o^2$ $H_0: \sigma^2 \leq \sigma_o^2$	$\frac{(n-1)S^2}{\sigma_o^2}$	$[\chi_{1-\alpha/2, n-1}^2, \chi_{\alpha/2, n-1}^2]$ $[\chi_{1-\alpha, n-1}^2, \infty)$ $[0, \chi_{\alpha, n-1}^2]$
Normalak, Independenteak.		$I_{\sigma_1^2 / \sigma_2^2}^{1-\alpha} = \left[\frac{S_1^2 / S_2^2}{F_{\alpha/2, n_1-1, n_2-1}}, \frac{S_1^2 / S_2^2}{F_{1-\alpha/2, n_1-1, n_2-1}} \right]$	$H_0: \sigma_1^2 = \sigma_2^2$ $H_0: \sigma_1^2 \geq \sigma_2^2$ $H_0: \sigma_1^2 \leq \sigma_2^2$	$\frac{S_1^2}{S_2^2}$	$[F_{1-\alpha/2, n_1-1, n_2-1}, F_{\alpha/2, n_1-1, n_2-1}]$ $[F_{1-\alpha, n_1-1, n_2-1}, \infty)$ $[0, F_{\alpha, n_1-1, n_2-1}]$
p populazioaren proportzioa	$n \geq 30$	$I_p^{1-\alpha} = \left[\hat{p} - z_{\alpha/2} \sqrt{\frac{\hat{p}\hat{q}}{n}}, \hat{p} + z_{\alpha/2} \sqrt{\frac{\hat{p}\hat{q}}{n}} \right]$	$H_0: p = p_o$ $H_0: p \geq p_o$ $H_0: p \leq p_o$	$(\hat{p} - p_o) / \sqrt{p_o q_o / n}$	$[-z_{\alpha/2}, z_{\alpha/2}]$ $[-z_{\alpha}, \infty)$ $(-\infty, z_{\alpha}]$
p_i populazioen proportzioak	$n_1 \geq 30$ $n_2 \geq 30$	$I_{p_1 - p_2}^{1-\alpha} = \left[(\hat{p}_1 - \hat{p}_2) \mp z_{\alpha/2} \sqrt{\frac{\hat{p}_1 \hat{q}_1}{n_1} + \frac{\hat{p}_2 \hat{q}_2}{n_2}} \right]$	$H_0: p_1 - p_2 = 0$ $H_0: p_1 - p_2 \geq 0$ $H_0: p_1 - p_2 \leq 0$	$(\hat{p}_1 - \hat{p}_2) / \sqrt{\frac{\hat{p}_1 \hat{q}_1}{n_1} + \frac{\hat{p}_2 \hat{q}_2}{n_2}}$	$[-z_{\alpha/2}, z_{\alpha/2}]$ $[-z_{\alpha}, \infty)$ $(-\infty, z_{\alpha}]$

