CONTRASTES DE HIPÓTESIS PARAMÉTRICOS

H_0	Estadística Utilizada	Distribución en el Muestreo	H_1	Región Crítica
$\mu \geq \mu_0$ $\mu \leq \mu_0$ $\mu = \mu_0$	$z = \dfrac{\bar{x} - \mu_0}{\frac{\sigma}{\sqrt{n}}}$ σ^2 conocida	N(0,1)	$\mu < \mu_0$ $\mu > \mu_0$ $\mu \neq \mu_0$	$z < -z_\alpha$ $z > z_\alpha$ $z < -z_{\alpha/2}$ y $z > z_{\alpha/2}$
$\mu \geq \mu_0$ $\mu \leq \mu_0$ $\mu = \mu_0$	$t = \dfrac{\bar{x} - \mu_0}{\frac{s}{\sqrt{n}}}$ σ^2 desconocida	t_v $v = (n-1)$	$\mu < \mu_0$ $\mu > \mu_0$ $\mu \neq \mu_0$	$t < -t_\alpha$ $t > t_\alpha$ $t < -t_{\alpha/2}$ y $t > t_{\alpha/2}$
$\mu_1-\mu_2 \geq d_0$ $\mu_1-\mu_2 \leq d_0$ $\mu_1-\mu_2 = d_0$	$z = \dfrac{(\bar{x}_1 - \bar{x}_2) - d_0}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$ σ_1^2, σ_2^2 conocidas muestras indep.(n_1,n_2)	N(0,1)	$\mu_1-\mu_2 < d_0$ $\mu_1-\mu_2 > d_0$ $\mu_1-\mu_2 \neq d_0$	$z < -z_\alpha$ $z > z_\alpha$ $z < -z_{\alpha/2}$ y $z > z_{\alpha/2}$

$\mu_1-\mu_2 \geq d_0$ $\mu_1-\mu_2 \leq d_0$ $\mu_1-\mu_2 = d_0$	$t=\dfrac{(\overline{x_1}-\overline{x_2})-d_0}{S_p\sqrt{\dfrac{1}{n_1}+\dfrac{1}{n_2}}}$ σ_1^2, σ_2^2 desconocidas $\sigma_1^2 = \sigma_2^2$ muestras indep.(n_1,n_2)	t_v $v = (n_1+n_2-2)$ $S_p^2=\dfrac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}$	$\mu_1-\mu_2 < d_0$ $\mu_1-\mu_2 > d_0$ $\mu_1-\mu_2 \neq d_0$	$t < -t_\alpha$ $t > t_\alpha$ $t < -t_{\alpha/2}$ y $t > t_{\alpha/2}$
$\mu_1-\mu_2 \geq d_0$ $\mu_1-\mu_2 \leq d_0$ $\mu_1-\mu_2 = d_0$	$t=\dfrac{(\overline{x_1}-\overline{x_2})-d_0}{\sqrt{\dfrac{s_1^2}{n_1}+\dfrac{s_2^2}{n_2}}}$ σ_1^2, σ_2^2 desconocidas $\sigma_1^2 \neq \sigma_2^2$ muestras indep.(n_1,n_2)	t_v $v=\dfrac{\left(\dfrac{S_1^2}{n_1}+\dfrac{S_2^2}{n_2}\right)^2}{\dfrac{\left(\dfrac{S_1^2}{n_1}\right)^2}{n_1-1}+\dfrac{\left(\dfrac{S_2^2}{n_2}\right)^2}{n_2-1}}$ Aprox. de Welch	$\mu_1-\mu_2 < d_0$ $\mu_1-\mu_2 > d_0$ $\mu_1-\mu_2 \neq d_0$	$t < -t_\alpha$ $t > t_\alpha$ $t < -t_{\alpha/2}$ y $t > t_{\alpha/2}$
$\mu_1-\mu_2 \geq d_0$ $\mu_1-\mu_2 \leq d_0$ $\mu_1-\mu_2 = d_0$	$t=\dfrac{\overline{d}-d_0}{\dfrac{s_d}{\sqrt{n}}}$ σ_1^2, σ_2^2 desconocidas datos emparejados (n) $d_i=x_i-y_i$	t_v $v = (n-1)$	$\mu_1-\mu_2 < d_0$ $\mu_1-\mu_2 > d_0$ $\mu_1-\mu_2 \neq d_0$	$t < -t_\alpha$ $t > t_\alpha$ $t < -t_{\alpha/2}$ y $t > t_{\alpha/2}$

$\sigma^2 \geq \sigma_0^2$ $\sigma^2 \leq \sigma_0^2$ $\sigma^2 = \sigma_0^2$	$X^2 = \frac{(n-1)\,S^2}{\sigma_0^{\;2}}$	χ^2_v $v = (n-1)$	$\sigma^2 < \sigma^2_0$ $\sigma^2 > \sigma^2_0$ $\sigma^2 \neq \sigma^2_0$	$x^2 < \chi^2_{(1-\alpha)}$ $x^2 > \chi^2_{\alpha}$ $x^2 < \chi^2_{(1-\alpha/2)}$ y $x^2 > \chi^2_{\alpha/2}$
$\sigma_1^{\;2} \geq \sigma_2^{\;2}$ $\sigma_1^{\;2} \leq \sigma_2^{\;2}$ $\sigma_1^{\;2} = \sigma_2^{\;2}$	$F = \frac{S_1^{\;2}}{S_2^{\;2}}$ muestras independientes	$F_{v1,v2}$ $v_1 = (n_1 - 1)$ $v_2 = (n_2 - 1)$	$\sigma_1^{\;2} < \sigma_2^{\;2}$ $\sigma_1^{\;2} > \sigma_2^{\;2}$ $\sigma_1^{\;2} \neq \sigma_2^{\;2}$	$f < F_{(1-\alpha)}$ $f > F_{\alpha}$ $f < F_{(1-\alpha/2)}$ y $f > F_{\alpha/2}$
$p \geq p_0$ $p \leq p_0$ $p = p_0$	$z = \frac{\hat{p} - p_0}{\sqrt{\frac{\hat{p}\,(1-\hat{p})}{n}}}$ para $n \geq 30$	N(0,1)	$p < p_0$ $p > p_0$ $p \neq p_0$	$z < -z_{\alpha}$ $z > z_{\alpha}$ $z < -z_{\alpha/2}$ y $z > z_{\alpha/2}$
$p_1-p_2 \geq d_0$ $p_1-p_2 \leq d_0$ $p_1-p_2 = d_0$	$z = \frac{(\hat{p}_1 - \hat{p}_2) - d_0}{\sqrt{\frac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \frac{\hat{p}_2(1-\hat{p}_2)}{n_2}}}$ muestras independientes	N(0,1)	$p_1-p_2 < d_0$ $p_1-p_2 > d_0$ $p_1-p_2 \neq d_0$	$z < -z_{\alpha}$ $z > z_{\alpha}$ $z < -z_{\alpha/2}$ y $z > z_{\alpha/2}$