QUADRO - Testes de Hipóteses Paramétricos

H_0	Tipo de população(ões)	Dimensão da(s) amostra(s)	Conhece(m)-se a(s) variância(s) populacional(ais)?	Estatística de Teste (Sob H_0)
$H_0{:}\mu = k$	Normal	Qualquer	(σ) Sim	$\dfrac{\overline{X}-k}{\sigma/\sqrt{n}} \sim N(0,1)$
$H_0{:}\mu = k$	Normal	Qualquer	Não	$\dfrac{\overline{X}-k}{S/\sqrt{n}} \sim t_{n-1}$
$H_0{:}\mu = k$	Qualquer	Grande	Não	$\dfrac{\overline{X}-k}{S/\sqrt{n}} \stackrel{.}{\sim} N(0,1)$
$H_0{:}\mu = k$	Qualquer	Grande	(σ) Sim	$\dfrac{\overline{X}-k}{\sigma/\sqrt{n}} \stackrel{.}{\sim} N(0,1)$
$H_0{:}\mu_1 - \mu_2 = k$	Normais	Quaisquer	$(\sigma_1$ e $\sigma_2)$ Sim	$\dfrac{\left(\overline{X}_1-\overline{X}_2\right)-k}{\sqrt{\dfrac{\sigma_1^2}{n_1}+\dfrac{\sigma_2^2}{n_2}}} \sim N(0\ ,\ 1)$
$H_0{:}\mu_1 - \mu_2 = k$	Normais	Quaisquer	$(\sigma_1$ e $\sigma_2)$ Não e $\sigma_1^2 = \sigma_2^2$	$\dfrac{\left(\overline{X}_1-\overline{X}_2\right)-k}{\sqrt{\dfrac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}}\sqrt{\dfrac{1}{n_1}+\dfrac{1}{n_2}}} \sim t_{n_1+n_2-2}$
$H_0{:}\mu_1 - \mu_2 = k$	Normais	Quaisquer	$(\sigma_1$ e $\sigma_2)$ Não e $\sigma_1^2 \neq \sigma_2^2$	$\dfrac{(\overline{X}_1-\overline{X}_2)-k}{\sqrt{\dfrac{S_1^2}{n_1}+\dfrac{S_2^2}{n_2}}} \sim t_\nu$ onde $\nu = \left(S_1^2/n_1 + S_2^2/n_2\right)^2 \Bigg/ \left(\dfrac{\left(S_1^2/n_1\right)^2}{n_1-1}+\dfrac{\left(S_2^2/n_2\right)^2}{n_2-1}\right)$

$H_0: \mu_1 - \mu_2 = k$	Quaisquer	Grandes	(σ_1 e σ_2) Não	$\dfrac{(\bar{X}_1 - \bar{X}_2) - k}{\sqrt{\dfrac{S_1^2}{n_1} + \dfrac{S_2^2}{n_2}}} \dot{\sim} N(0,1)$
$H_0: \mu_1 - \mu_2 = k$	Quaisquer	Grandes	(σ_1 e σ_2) Sim	$\dfrac{(\bar{X}_1 - \bar{X}_2) - k}{\sqrt{\dfrac{\sigma_1^2}{n_1} + \dfrac{\sigma_2^2}{n_2}}} \dot{\sim} N(0,1)$
$H_0: \sigma^2 = k$	Normal	Qualquer	—	$\dfrac{(n-1)S^2}{k} \sim \chi^2_{n-1}$
$H_0: \dfrac{\sigma_1^2}{\sigma_2^2} = k$	Normais	Qualquer	—	$\dfrac{S_1^2}{S_2^2} \cdot \left(\dfrac{1}{k}\right) \sim F^{n_1-1}_{n_2-1}$
$H_0: p = k$	Binomial	Grande	—	$\dfrac{\hat{p} - k}{\sqrt{\dfrac{k(1-k)}{n}}} \dot{\sim} N(0,1)$
$H_0: p_1 - p_2 = k$	Binomial	Grandes	—	$\dfrac{(\hat{p}_1 - \hat{p}_2) - k}{\sqrt{\dfrac{\hat{p}_1(1-\hat{p}_1)}{n_1} + \dfrac{\hat{p}_2(1-\hat{p}_2)}{n_2}}} \dot{\sim} N(0,1)$