

Hipóteses	Pressupostos	Estatística de teste	Critério para rejeitar $H_0$	
$H_0 : \mu = \mu_0$ $\begin{cases} H_A : \mu \neq \mu_0 \\ H_A : \mu > \mu_0 \\ H_A : \mu < \mu_0 \end{cases}$	$X \sim N(\mu; \sigma^2)$ $\sigma^2$ conhecida	$Z = \frac{\bar{X} - \mu_0}{\sigma / \sqrt{n}}$	$ z_c  > z_{\alpha/2}$ $z_c > z_\alpha$ $z_c < -z_\alpha$	1
	$X \sim N(\mu; \sigma^2)$ $\sigma^2$ desconhecida	$T = \frac{\bar{X} - \mu_0}{S / \sqrt{n}} \quad \nu = n - 1$	$ t_c  > t_{\alpha/2, \nu}$ $t_c > t_{\alpha, \nu}$ $t_c < -t_{\alpha, \nu}$	2
$H_0 : \mu_1 = \mu_2$ $\begin{cases} H_A : \mu_1 \neq \mu_2 \\ H_A : \mu_1 > \mu_2 \\ H_A : \mu_1 < \mu_2 \end{cases}$	$X_i \sim N(\mu_i; \sigma_i^2)$ $\sigma_i^2$ conhecidas Amostras indep.	$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$	$ z_c  > z_{\alpha/2}$ $z_c > z_\alpha$ $z_c < -z_\alpha$	3
	$X_i \sim N(\mu_i; \sigma_i^2)$ $\sigma_i^2$ desconhecidas, mas iguais Amostras indep.	$T = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{1}{n_1} + \frac{1}{n_2}\right) S^2}} \quad \nu = (n_1 - 1) + (n_2 - 1)$ $S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{(n_1 - 1) + (n_2 - 1)}$	$ t_c  > t_{\alpha/2, \nu}$ $t_c > t_{\alpha, \nu}$ $t_c < -t_{\alpha, \nu}$	4
	$X_i \sim N(\mu_i; \sigma_i^2)$ $\sigma_i^2$ desconhecidas, mas desiguais Amostras indep.	$T = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \quad \nu = \frac{\left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}\right)^2}{\frac{(S_1^2/n_1)^2}{n_1 - 1} + \frac{(S_2^2/n_2)^2}{n_2 - 1}}$	$ t_c  > t_{\alpha/2, \nu}$ $t_c > t_{\alpha, \nu}$ $t_c < -t_{\alpha, \nu}$	5
$H_0 : \mu_d = 0$ $\begin{cases} H_A : \mu_d \neq 0 \\ H_A : \mu_d > 0 \\ H_A : \mu_d < 0 \end{cases}$	$X_i \sim N(\mu_i; \sigma_i^2)$ Amostras dep. (pareadas)	$T = \frac{\bar{d}}{S_d / \sqrt{n}} \quad \nu = n - 1$	$ t_c  > t_{\alpha/2, \nu}$ $t_c > t_{\alpha, \nu}$ $t_c < -t_{\alpha, \nu}$	6
$H_0 : \sigma^2 = \sigma_0^2$ $\begin{cases} H_A : \sigma^2 \neq \sigma_0^2 \\ H_A : \sigma^2 > \sigma_0^2 \\ H_A : \sigma^2 < \sigma_0^2 \end{cases}$	$X \sim N(\mu; \sigma^2)$	$Q = \frac{(n-1)S^2}{\sigma_0^2} \quad \nu = n - 1$	$q_c < q'_{\alpha/2, \nu} \text{ ou } q_c > q_{\alpha/2, \nu}$ $q_c > q_{\alpha, \nu}$ $q_c < q'_{\alpha, \nu}$	7
$H_0 : \sigma_1^2 = \sigma_2^2$ $\begin{cases} H_A : \sigma_1^2 \neq \sigma_2^2 \\ H_A : \sigma_1^2 > \sigma_2^2 \end{cases}$	$X_i \sim N(\mu_i; \sigma_i^2)$ Amostras indep.	$F = \frac{S_1^2}{S_2^2} \rightarrow \frac{\text{maior}}{\text{menor}}$	$f_c > f_{\alpha/2, n_1-1, n_2-1}$ $f_c > f_{\alpha, n_1-1, n_2-1}$	8
$H_0 : \pi = \pi_0$ $\begin{cases} H_A : \pi \neq \pi_0 \\ H_A : \pi > \pi_0 \\ H_A : \pi < \pi_0 \end{cases}$	$np > 5$ e $n(1-p) > 5$	$Z = \frac{p - \pi_0}{\sqrt{\frac{\pi_0(1-\pi_0)}{n}}}$	$ z_c  > z_{\alpha/2}$ $z_c > z_\alpha$ $z_c < -z_\alpha$	9
$H_0 : \pi_1 = \pi_2$ $\begin{cases} H_A : \pi_1 \neq \pi_2 \\ H_A : \pi_1 > \pi_2 \\ H_A : \pi_1 < \pi_2 \end{cases}$	$n_1 p_i > 5$ e $n_i(1-p_i) > 5$	$Z = \frac{p_1 - p_2}{\sqrt{\frac{p_1(1-p_1)}{n_1} + \frac{p_2(1-p_2)}{n_2}}}$	$ z_c  > z_{\alpha/2}$ $z_c > z_\alpha$ $z_c < -z_\alpha$	10