

Matemática III

Intervalos de confianza - Lista de casos

1. $\left[\bar{X} - z_{\alpha/2} \frac{\sigma}{\sqrt{n}}, \bar{X} + z_{\alpha/2} \frac{\sigma}{\sqrt{n}} \right]$
2. $\left[\bar{X} - t_{\alpha/2, n-1} \frac{S}{\sqrt{n}}, \bar{X} + t_{\alpha/2, n-1} \frac{S}{\sqrt{n}} \right]$
3. $\left[\bar{X} - z_{\alpha/2} \frac{S}{\sqrt{n}}, \bar{X} + z_{\alpha/2} \frac{S}{\sqrt{n}} \right]$
4. $\left[(\bar{X}_1 - \bar{X}_2) - z_{\alpha/2} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}, (\bar{X}_1 - \bar{X}_2) + z_{\alpha/2} \sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}} \right]$
5. $\left[(\bar{X}_1 - \bar{X}_2) - z_{\alpha/2} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}, (\bar{X}_1 - \bar{X}_2) + z_{\alpha/2} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}} \right]$
6. $\left[(\bar{X}_1 - \bar{X}_2) - t_{\alpha/2, n_1+n_2-2} \cdot S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}, (\bar{X}_1 - \bar{X}_2) + t_{\alpha/2, n_1+n_2-2} \cdot S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}} \right]$
 $\text{con } S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$
7. $\left[(\bar{X}_1 - \bar{X}_2) - t_{\alpha/2, \nu} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}, (\bar{X}_1 - \bar{X}_2) + t_{\alpha/2, \nu} \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}} \right] \text{ con } \nu = \frac{\left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2} \right)^2}{\frac{(S_1^2/n_1)^2}{(n_1-1)} + \frac{(S_2^2/n_2)^2}{(n_2-1)}}$
8. $\left[\bar{D} - t_{\alpha/2, n-1} \cdot \frac{S_D}{\sqrt{n}}, \bar{D} + t_{\alpha/2, n-1} \cdot \frac{S_D}{\sqrt{n}} \right]$
9. $\left[\frac{(n-1)S^2}{\chi_{\alpha/2, n-1}^2}, \frac{(n-1)S^2}{\chi_{1-\alpha/2, n-1}^2} \right]$
10. $\left[\frac{S_1^2}{S_2^2} \cdot f_{1-\alpha/2; n_2-1, n_1-1}, \frac{S_1^2}{S_2^2} \cdot f_{\alpha/2; n_2-1, n_1-1} \right]$
11. $\left[\hat{P} - z_{\alpha/2} \sqrt{\frac{\hat{P}(1-\hat{P})}{n}}, \hat{P} + z_{\alpha/2} \sqrt{\frac{\hat{P}(1-\hat{P})}{n}} \right]$
12. $\left[(\hat{P}_1 - \hat{P}_2) - z_{\alpha/2} \sqrt{\frac{\hat{P}_1(1-\hat{P}_1)}{n_1} + \frac{\hat{P}_2(1-\hat{P}_2)}{n_2}}, (\hat{P}_1 - \hat{P}_2) + z_{\alpha/2} \sqrt{\frac{\hat{P}_1(1-\hat{P}_1)}{n_1} + \frac{\hat{P}_2(1-\hat{P}_2)}{n_2}} \right]$