INTERVALOS DE CONFIANZA

UNA MUESTRA

	Población	Estadístico	Intervalo
μ	$X \equiv N(\mu,\sigma^2)$ σ conocida	$\frac{\overline{X}-\mu}{\sigma/\sqrt{n}} \equiv N(0,1)$	$(\overline{X} - z_{\alpha/2}\frac{\sigma}{\sqrt{n}}, \overline{X} + z_{\alpha/2}\frac{\sigma}{\sqrt{n}})$
μ	$X \equiv N(\mu,\sigma^2)$ σ desconocida	$\frac{\overline{X}-\mu}{S/\sqrt{n}} \equiv t_{n-1}$	$(\overline{X} - t_{\alpha/2,n-1}\frac{S}{\sqrt{n}}, \overline{X} + t_{\alpha/2,n-1}\frac{S}{\sqrt{n}})$.
σ^2	$X \equiv N(\mu,\sigma^2)$	$\frac{ns^2}{\sigma^2} \equiv \chi^2_{n-1}$	$(\frac{ns^2}{\chi^2_{\alpha/2,n-1}}, \frac{ns^2}{\chi^2_{1-\alpha/2,n-1}})$
p	$X \equiv B(n,p)$	$\frac{p_x - p}{\sqrt{p_x(1-p_x)/n}} \equiv N(0,1)$	$(p_x - z_{\alpha/2}\sqrt{\frac{p_x(1-p_x)}{n}}, p_x + z_{\alpha/2}\sqrt{\frac{p_x(1-p_x)}{n}})$.

DOS MUESTRAS

Parámetro	Población	Estadístico	Intervalo
μ_1 !μ_2	$X \equiv N(\mu_1,\sigma_1^2)$ $Y \equiv N(\mu_2,\sigma_2^2)$ σ_1^2 y σ_2^2 conocidas	$\frac{(\overline{X} \pm \overline{Y}) - (\mu_1 \pm \mu_2)}{\sqrt{\frac{\sigma_1^2}{n} + \frac{\sigma_2^2}{m}}} \equiv N(0,1)$	$(\overline{X} \pm \overline{Y} - z_{\alpha/2}\sqrt{\frac{\sigma_1^2}{n} + \frac{\sigma_2^2}{m}},$ $\overline{X} \pm \overline{Y} + z_{\alpha/2}\sqrt{\frac{\sigma_1^2}{n} + \frac{\sigma_2^2}{m}})$.
μ_1 !μ_2	$X \equiv N(\mu_1,\sigma_1^2)$ $Y \equiv N(\mu_2,\sigma_2^2)$ σ_1^2 y σ_2^2 desconocidas pero iguales	$\frac{((\overline{X} \pm \overline{Y}) - (\mu_1 \pm \mu_2))}{\sqrt{\frac{1}{n} + \frac{1}{m}}\sqrt{\frac{ns_1^2 + ms_2^2}{n+m-2}}} \equiv t_{n+m-2}$	$((\overline{X} \pm \overline{Y}) - t_{\alpha/2,n+m-2}\sqrt{\frac{1}{n} + \frac{1}{m}}\sqrt{\frac{ns_1^2 + ms_2^2}{n+m-2}},$ $(\overline{X} \pm \overline{Y}) + t_{\alpha/2,n+m-2}\sqrt{\frac{1}{n} + \frac{1}{m}}\sqrt{\frac{ns_1^2 + ms_2^2}{n+m-2}})$.
μ_1 !μ_2	$X \equiv N(\mu_1,\sigma_1^2)$ $Y \equiv N(\mu_2,\sigma_2^2)$ σ_1^2 y σ_2^2 desconocidas y distintas	$\frac{(\overline{X} \pm \overline{Y}) - (\mu_1 \pm \mu_2)}{\sqrt{\frac{s_1^2}{n} + \frac{s_2^2}{m}}} \equiv N(0,1)$	$(\overline{X} \pm \overline{Y} - z_{\alpha/2}\sqrt{\frac{s_1^2}{n} + \frac{s_2^2}{m}},$ $\overline{X} \pm \overline{Y} + z_{\alpha/2}\sqrt{\frac{s_1^2}{n} + \frac{s_2^2}{m}})$
$\frac{\sigma_2^2}{\sigma_1^2}$	$X \equiv N(\mu_1,\sigma_1^2)$ $Y \equiv N(\mu_2,\sigma_2^2)$	$\frac{S_1^2/\sigma_1^2}{S_2^2/\sigma_2^2} \equiv F_{n-1,m-1}$	$(\frac{S_2^2}{S_1^2}F_{1-\alpha/2,n-1,m-1}, \frac{S_2^2}{S_1^2}F_{\alpha/2,n-1,m-1})$