$$\left[\bar{X} - z_{\frac{\alpha}{2}}\frac{\sigma}{\sqrt{n}}, \bar{X} + z_{\frac{\alpha}{2}}\frac{\sigma}{\sqrt{n}}\right] \qquad \left[\bar{X} - t_{\frac{\alpha}{2}}\frac{S}{\sqrt{n}}, \bar{X} + t_{\frac{\alpha}{2}}\frac{S}{\sqrt{n}}\right] \qquad \left[\bar{X} - z_{\frac{\alpha}{2}}\frac{S}{\sqrt{n}}, \bar{X} + z_{\frac{\alpha}{2}}\frac{S}{\sqrt{n}}\right]$$

$$\left[\hat{P} - z_{\frac{\alpha}{2}}\sqrt{\frac{\hat{P}\left(1-\hat{P}\right)}{n}},\ \hat{P} + z_{\frac{\alpha}{2}}\sqrt{\frac{\hat{P}\left(1-\hat{P}\right)}{n}}\right]$$

$Z = \frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$	$H_1 : \mu \neq \mu_0$ $H_1 : \mu > \mu_0$ $H_1 : \mu < \mu_0$	$\lvert Z \rvert > z\alpha/_2$ $Z > z_\alpha$ $Z < -z_\alpha$
$T = \frac{\bar{X} - \mu_0}{s/\sqrt{n}}$	$H_1 : \mu \neq \mu_0$ $H_1 : \mu > \mu_0$ $H_1 : \mu < \mu_0$	$\lvert T \rvert > t\alpha/_{2,n-1}$ $T > t_{\alpha,n-1}$ $T < -t_{\alpha,n-1}$
$Z = \frac{\bar{X} - \mu_0}{s/\sqrt{n}}$	$H_1 : \mu \neq \mu_0$ $H_1 : \mu > \mu_0$ $H_1 : \mu < \mu_0$	$\lvert Z \rvert > z\alpha/_2$ $Z > z_\alpha$ $Z < -z_\alpha$
$Z = \frac{\hat{P} - p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$	$H_1 : p \neq p_0$ $H_1 : p > p_0$ $H_1 : p < p_0$	$\lvert Z \rvert > z\alpha/_2$ $Z > z_\alpha$ $Z < -z_\alpha$

$$S_{xx} = \sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2 = \sum_{i=1}^{n} x_i^2 - \frac{\left(\sum_{i=1}^{n} x_i\right)^2}{n}$$

$$S_{xy} = \sum_{i=1}^{n} y_i\left(x_i - \bar{x}\right) = \sum_{i=1}^{n} x_i y_i - \frac{\left(\sum_{i=1}^{n} x_i\right)\left(\sum_{i=1}^{n} y_i\right)}{n}$$

$$SS_R = S_{yy} - \hat{\beta}_1 S_{xy} \qquad \text{ó} \qquad SS_R = S_{yy} - \frac{S_{xy}^2}{S_{xx}}$$

$$\left[\hat{\beta}_1 - t_{\frac{\alpha}{2},n-2}\sqrt{\frac{\hat{\sigma}^2}{S_{xx}}};\ \hat{\beta}_1 + t_{\frac{\alpha}{2},n-2}\sqrt{\frac{\hat{\sigma}^2}{S_{xx}}}\right]$$

$$\left[\hat{\beta}_0 - t_{\frac{\alpha}{2},n-2}\sqrt{\hat{\sigma}^2\left(\frac{1}{n} + \frac{\bar{x}^2}{S_{xx}}\right)};\ \hat{\beta}_0 + t_{\frac{\alpha}{2},n-2}\sqrt{\hat{\sigma}^2\left(\frac{1}{n} + \frac{\bar{x}^2}{S_{xx}}\right)}\ \right]$$

$$T\ \frac{\hat{\beta}_0 - \beta_{00}}{\sqrt{\hat{\sigma}^2\left(\frac{1}{n} + \frac{\bar{x}^2}{S_{xx}}\right)}} \qquad T = \frac{\hat{\beta}_1 - \beta_{10}}{\sqrt{\frac{\hat{\sigma}^2}{S_{xx}}}} \qquad R^2 = 1 - \frac{SS_R}{S_{YY}}$$

$$\left[\hat{\beta}_0 + \hat{\beta}_1 x_0 - t_{\frac{\alpha}{2},n-2}\sqrt{\hat{\sigma}^2\left[\frac{1}{n} + \frac{\left(x_0 - \bar{x}\right)^2}{S_{xx}}\right]};\ \hat{\beta}_0 + \hat{\beta}_1 x_0 + t_{\frac{\alpha}{2},n-2}\sqrt{\hat{\sigma}^2\left[\frac{1}{n} + \frac{\left(x_0 - \bar{x}\right)^2}{S_{xx}}\right]}\ \right]$$

$$\left[\hat{Y}_0 - t_{\frac{\alpha}{2},n-2}\sqrt{\hat{\sigma}^2\left[1 + \frac{1}{n} + \frac{\left(x_0 - \bar{x}\right)^2}{S_{xx}}\right]};\ \hat{Y}_0 + t_{\frac{\alpha}{2},n-2}\sqrt{\hat{\sigma}^2\left[1 + \frac{1}{n} + \frac{\left(x_0 - \bar{x}\right)^2}{S_{xx}}\right]}\right]$$