

$$\bar{X} = \frac{\sum_{i=1}^m x_i \cdot n_i}{n}$$

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$$s = \sqrt{s^2}$$

$$\gamma_2 = \frac{\sum_{i=1}^m (x_i - \bar{X})^4 \cdot n_i}{n \cdot s^4} - 3$$

$$s_1 = \sqrt{\frac{\sum_{j=1}^n (x_j - \bar{x})^2}{n-1}}$$

$$v = \frac{s}{\bar{X}} \cdot 100 \quad [\%]$$

$$\hat{x} = a_{mo} + h \cdot \frac{d_0}{d_0 + d_1}$$

$$\bar{x} = \frac{\sum_{j=1}^n x_j}{n}$$

$$\gamma_1 = \frac{\sum_{i=1}^m (x_i - \bar{X})^3 \cdot n_i}{n \cdot s^3}$$

$$Q = a + h \cdot \frac{r + 0,5 - \sum_{i=1}^{r-1} n_i}{n_Q}$$

$$\tau = \frac{\bar{x} - \hat{x}}{s_x}$$

$$R = x_{\max} - x_{\min}$$

$$s^2 = \frac{1}{n} \sum_{i=1}^m (x_i - \bar{X})^2 \cdot n_i$$

$$\tilde{x} = a_{me} + h \cdot \frac{\frac{n+1}{2} - \sum_{i=1}^{r-1} n_i}{n_{\tilde{x}}}$$

$$s_1^2 = \frac{\sum_{j=1}^n (x_j - \bar{x})^2}{n-1}$$

$$\text{est } \sigma = s_1$$

$$\text{est } \sigma^2 = s_1^2$$

$$\text{est } \mu = \bar{x}$$

$$\text{est } \pi = p; \quad p = \frac{x}{n}$$

$$P(\bar{x} - \Delta \leq \mu \leq \bar{x} + \Delta) = 1 - \alpha$$

$$\Delta = u_{1-\alpha/2} \cdot \frac{\sigma}{\sqrt{n}}$$

$$P(\bar{x} - \Delta \leq \mu \leq \bar{x} + \Delta) = 1 - \alpha$$

$$\Delta = t_{\alpha, n-1} \cdot \frac{s_1}{\sqrt{n}}$$

$$n = u_{1-\alpha/2}^2 \cdot \frac{\sigma^2}{\Delta^2}$$

$$P\left(\sqrt{\frac{(n-1) \cdot s_1^2}{\chi_{1-\alpha/2, n-1}^2}} \leq \sigma \leq \sqrt{\frac{(n-1) \cdot s_1^2}{\chi_{\alpha/2, n-1}^2}}\right) = 1 - \alpha$$

$$P\left(\frac{(n-1) \cdot s_1^2}{\chi_{1-\alpha/2, n-1}^2} \leq \sigma^2 \leq \frac{(n-1) \cdot s_1^2}{\chi_{\alpha/2, n-1}^2}\right) = 1 - \alpha$$

$$P\left(p - u_{1-\frac{\alpha}{2}} \sigma_p \leq \pi \leq p + u_{1-\frac{\alpha}{2}} \sigma_p\right) = 1 - \alpha$$

$$\sigma_p = \sqrt{\frac{\pi(1-\pi)}{n-1}}$$

$$u = \frac{p - \pi_0}{\sigma_p}; \quad \sigma_p = \sqrt{\frac{\pi(1-\pi)}{n-1}}$$

$$u = \frac{p_1 - p_2}{\sigma_{p_1 - p_2}}; \quad \sigma_{p_1 - p_2} = \sqrt{\bar{p}(1-\bar{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}; \quad \bar{p} = \frac{n_1 p_1 + n_2 p_2}{n_1 + n_2}$$

=**AVERAGE**(číslo1, číslo2,...)

=**F.INV**(pravdepodobnosť; stupne voľnosti1; stupne voľnosti2)

=**CHISQ.INV**(pravdepodobnosť; stupne voľnosti)

=**NORM.DIST**(hodnota X; priemerná hodnota; smerodajná odchýlka; logická hodnota)

=**NORM.INV**(pravdepodobnosť; priemerná hodnota; smerodajná odchýlka)

=**NORM.S.DIST**(hodnota Z; logická hodnota)

=**NORM.S.INV**(pravdepodobnosť)

=**STDEV.S**(číslo1; číslo2;...)

=**T.INV**(pravdepodobnosť; stupne voľnosti)

=**VAR.S**(číslo1; číslo2;...)

TEST ZHODY ROZDELENIA

$$\chi^2 = \sum_{i=1}^k \frac{(n_i - np_i)^2}{np_i}$$

TESTY O STREDNEJ HODNOTE A ROZPTYLE

