

3)

MEJE	[0, 8.5]	(8.5, 9.5]	(9.5, 10.5]	(10.5, 11.5]	(11.5, ∞)
VELIKOST	8	12	14	12	4

RAČUN m_i

$n=50$

$$m_i = n P[X \text{ znotraj razreda } i]$$

$$m_1 = n P[X \leq 8.5] = n F_Y(8.5) = F_U\left(\frac{\ln 8.5 - \ln \tilde{m}_Y}{\sigma_{\ln Y}}\right) \cdot n$$

$$= 50 F_U\left(\frac{\ln 8.5 - \ln 10}{0.2}\right) = \underline{\underline{10.411}}$$

$$m_2 = n P[8.5 < Y \leq 9.5] = n (F_Y(9.5) - F_Y(8.5)) =$$

$$= n \left(F_U\left(\frac{\ln 9.5 - \ln \tilde{m}_Y}{\sigma_{\ln Y}}\right) - F_U\left(\frac{\ln 8.5 - \ln \tilde{m}_Y}{\sigma_{\ln Y}}\right) \right) = \underline{\underline{9.529}}$$

$$m_3 = \underline{\underline{9.878}}$$

$$m_4 = \underline{\underline{8.065}}$$

$$m_5 = \underline{\underline{12.117}}$$

 H_0 : Y JE PORAZDELEJENA LOGNORMALNO $\tilde{m}_Y = 10$ IN $\sigma_{\ln Y} = 0.2$. H_1 : Y NI PORAZDELEJENA TAKO

$\alpha = 5\%$

$k = 5 \quad \nu = 5 - 1 = 4$

$$H = \sum_{i=1}^k \frac{(m_i - \tilde{m}_i)^2}{m_i} = \frac{(10.411 - 8)^2}{10.411} + \frac{(9.529 - 12)^2}{9.529} + \dots = \underline{\underline{10.276}}$$

MEJA KRITICNEGA OBMOČJA: $\chi^2_{1-\alpha, \nu=4} = \underline{\underline{9.488}}$

KER JE $H > \chi^2_{1-\alpha}$, H_0 ZAVRNEMO!

Y STATISTIČNO ZNAČILNO NI PORAZDELEJENA

LOGNORMALNO $\tilde{m}_Y = 10$ IN $\sigma_{\ln Y} = 0.2$