$+\frac{200\cdot 100}{155^2}\left(\frac{200}{100}-\frac{100}{200}\right)^2 \approx 132{,}04$

$p\text{-value} = \int_{132{,}04}^{\infty} q_2(t)\,dt = 2{,}12\cdot 10^{-25}$ $2{,}12\cdot 10^{-25} < 0{,}01 \Rightarrow$ отвергаем

Т7

$n = 100$

I: "$S<$": 25 "$S=$": 50 "$S>$": 25

II: "$S<$": 52 "$S=$": 41 "$S>$": 7

Но: $\bar{x}_{n1}$ и $\bar{x}_{n2}$ имеют одинак. закон распр.

$p_- = \frac{44}{200}$, $p_= = \frac{91}{200}$ $p_+ = \frac{32}{200}$

$\tilde{\Delta}_1 = \sum_{i=1}^{3} \frac{(n_i - np_i)^2}{np_i} = \frac{\left(25 - 100\cdot\frac{44}{200}\right)^2}{\frac{44\cdot 100}{200}} + \frac{\left(50 - 100\cdot\frac{91}{200}\right)^2}{\frac{100\cdot 91}{200}} +$

$+ \frac{\left(25 - 100\cdot\frac{32}{200}\right)^2}{\frac{32\cdot 100}{200}} = 4{,}73 + 0{,}45 + 5{,}06 \approx 10{,}24$

$\tilde{\Delta}_2 = \frac{\left(52 - 100\cdot\frac{44}{200}\right)^2}{\frac{100\cdot 44}{200}} + \frac{\left(41 - 100\cdot\frac{91}{200}\right)^2}{\frac{100\cdot 91}{200}} + \frac{\left(7 - 100\cdot\frac{32}{200}\right)^2}{\frac{100\cdot 32}{200}} =$

$= 4{,}73 + 0{,}45 + 5{,}06 \approx 10{,}24$

$\Delta = \Delta_1 + \Delta_2 = 20,48$

$\Delta \sim \chi^2((2-1)(3-1)) = \chi^2(2)$

$p\text{-value} = P(\Delta \geq \hat{\Delta}) = \int_{20,48}^{\infty} q_2(t)\,dt = 3,57 \cdot 10^{-5} < \alpha = 0,01$

Отвергаем H_0

К 8

$n = 300$ в каждой

	2	3	4	5

H_0: однородная выборка