

**№9 (  $\xi - \eta$  )**

**a)**  $\rho_\xi(x) = \rho_\eta(x) = \text{Ind}_{[0,1]}(x)$ ,  $\rho_{\xi\eta}(x, y) = \text{Ind}_{[0,1]}(x) \cdot \text{Ind}_{[0,1]}(y) = \text{Ind}_{[0,1]^2}(x, y)$ ,  $\varkappa = \xi - \eta$

При  $t \in [-1, 0]$ :

$$F_\varkappa(t) = P(\varkappa \leq t) = P(\xi - \eta \leq t) = \iint_{x-y \leq t} \rho_{\xi\eta}(x, y) dx dy = \int_{-\infty}^{+\infty} \left( \int_{-\infty}^{z+y} \rho_{\xi\eta}(x, y) dx \right) dy =$$

$$\int_{-\infty}^{+\infty} \text{Ind}_{[0,1]}(y) \left( \int_{-\infty}^{z+y} \text{Ind}_{[0,1]}(x) dx \right) dy = \int_{-\infty}^{+\infty} \text{Ind}_{[0,1]}(y) \left( \int_{-\infty}^{z+y} \text{Ind} dx \right) dy$$

$$F_\varkappa(z) = \begin{cases} 0, & z \leq 1 \end{cases}$$