Подарок 

$\xi \sim R[0, \Theta]$

Выборка объема n

$\tilde{\Theta}_3' = \frac{n+1}{n} x_{max}$

! $D[\tilde{\Theta}_3'] = \frac{\Theta^2}{n(n+2)} \longrightarrow 0, n \to \infty \Rightarrow$ сост.

По определению:

$P(|\tilde{\Theta}_3' - \Theta| \geq \varepsilon) = P(\frac{n+1}{n} x_{max} \leq \Theta - \varepsilon) + P(\frac{n+1}{n} x_{max} \geq \Theta + \varepsilon) = P(x_{max} \leq \frac{n(\Theta-\varepsilon)}{n+1}) + P(x_{max} \geq \frac{n(\Theta+\varepsilon)}{n+1}) = F^n(\frac{n(\Theta-\varepsilon)}{n+1}) + 1 - F^n(\frac{n(\Theta+\varepsilon)}{n+1}) = \tilde{F}_1 + 1 - \tilde{F}_2$

$$\tilde{F}_1 = \begin{cases} \Theta > \varepsilon : \left(\frac{n(\Theta-\varepsilon)}{(n+1)\Theta}\right)^n \to 0, n \to \infty \\ \Theta \leq \varepsilon : 0^n \to 0, n \to \infty \end{cases}$$

$\tilde{F}_2$: $\frac{n(\Theta+\varepsilon)}{n+1} \leq \Theta \Rightarrow n\Theta + n\varepsilon \leq n\Theta + \Theta \Rightarrow n \leq \frac{\Theta}{\varepsilon} \Rightarrow$

$\forall \varepsilon > 0 \ \exists N = [\frac{\Theta}{\varepsilon}] + 10 \in \mathbb{N} : \forall n \geq N \hookrightarrow$

$\hookrightarrow \frac{n(\Theta+\varepsilon)}{n+1} > \Theta \Rightarrow \tilde{F}_2 = 1^n \Rightarrow$

$\Rightarrow |\tilde{F}_2 - 1| = 0 < \varepsilon \Rightarrow \tilde{F}_2 \to 1, n \to 0 \Rightarrow$

$\Rightarrow \tilde{F}_1 + 1 - \tilde{F}_2 \to 0, n \to 0 \Rightarrow \tilde{\Theta}_3'$ - сост.