

Eloncs fo meglatasai

$$X = \text{RAND}^2$$

$$\text{RAND} \sim \text{E}_{(0,1)}$$

$$\text{RAND}^2 \neq \text{E}_{(0,1)}$$

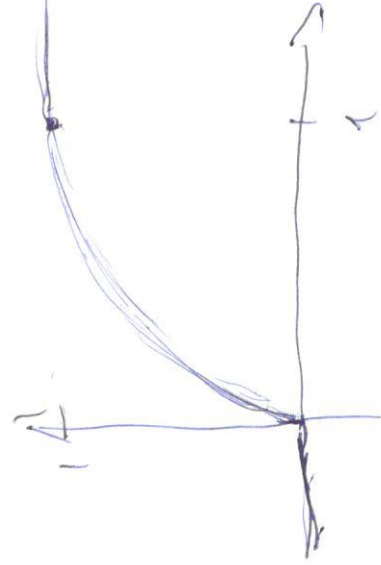
de $e(0,1)$

$$P(X < x) = F(x) \quad 0 < x < 1$$

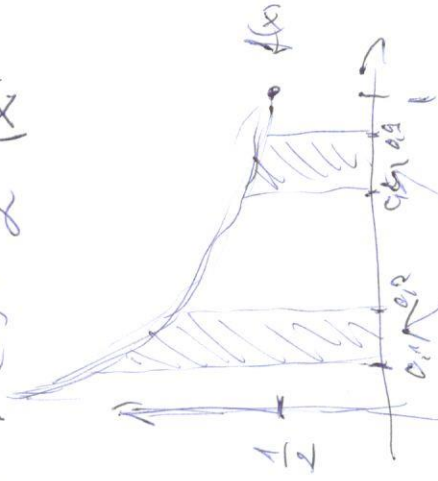
$$P(\bar{X} < x) = P(\text{RAND}^2 < x) =$$

$$= P(\text{RAND} < \sqrt{x}) \stackrel{\text{Egaltas}}{=} \frac{\sqrt{x} - 0}{1 - 0} = \sqrt{x} = F(x)$$

$$F(x) = \sqrt{x}$$



$$f(x) = F'(x) = \frac{1}{2} \cdot \frac{1}{\sqrt{x}}$$



$$\text{RAND}^2 = X$$

$$F(0.9) - F(0.8)$$

Niszak is meg:

$$P(X \in (0.8, 0.9)) = \int_{0.8}^{0.9} \frac{1}{2\sqrt{x}} dx = \sqrt{0.9} - \sqrt{0.8} =$$

$$= 0,05426 \text{ 5,4\%}$$

$$P(X \in (0.1, 0.2)) = \int_{0.1}^{0.2} \frac{1}{2\sqrt{x}} dx = \sqrt{0.2} - \sqrt{0.1} =$$

$$= 0,13093 \text{ 13,1\%}$$

$$P(0,6, 0,4) = \sqrt{0,4} = 0,6325 \quad 63,25\%$$

$$P(0,1, 1) = 1 - \sqrt{0,6} = 0,2254 \quad 22,54\%$$

~~40%~~ 30% Egyenlos