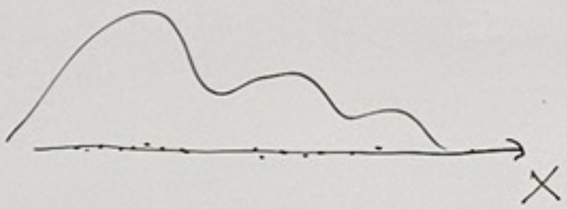
Dane: $\{x_i\}_{i=1}^N$

$K(x) = \ldots$

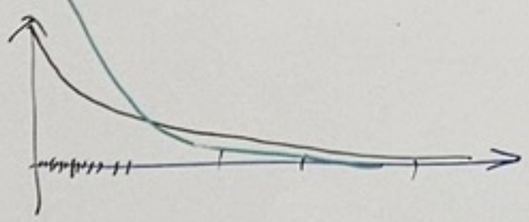


$$KDE(x; h, \{x_i\}) = \frac{1}{Nh} \sum_{i=1}^{N} K\left(\frac{x - x_i}{h}\right)$$

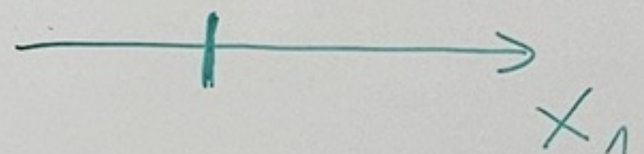
seaborn $\Rightarrow KDE(h, \{x_i\}_{i=1}^N)$

$p(x; \lambda)$ $\quad \lambda \in \mathbb{R}$ $\quad p(x = x_1, \lambda)$

$p(x) = \lambda e^{-\lambda x}$ $\quad \lambda \geq 0$?



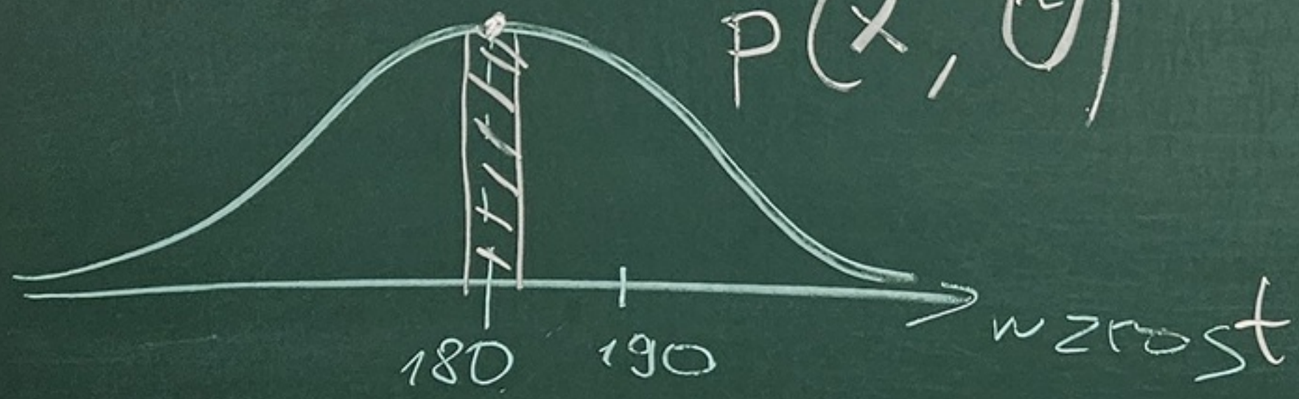
$p(x_1, \lambda) \cdot p(x_2, \lambda) \cdot \ldots$



$$L(X; \lambda) = \prod_{i=1}^{N} p(x_i; \lambda) \qquad \frac{dL}{d\lambda} =$$

Likelihood

$p(x, \Theta)$



$\{181, 166, 190, 158, \ldots$

$p(181, \Theta) = 0.4 \quad 0.9$

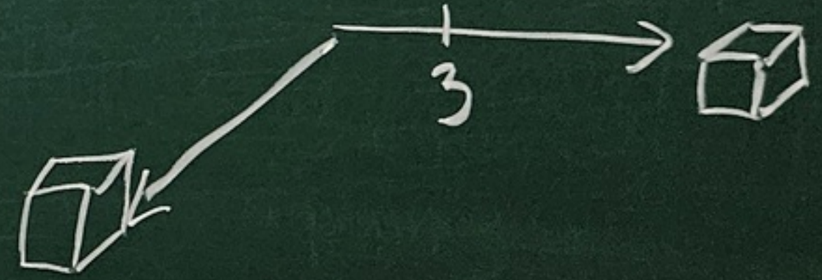
$p(166, \Theta) = 1.7 \quad 0.4$

$p(190$

$p(180) = 0$

$p(190) = 0$

$p(179.5 \leq x < 180.5)$



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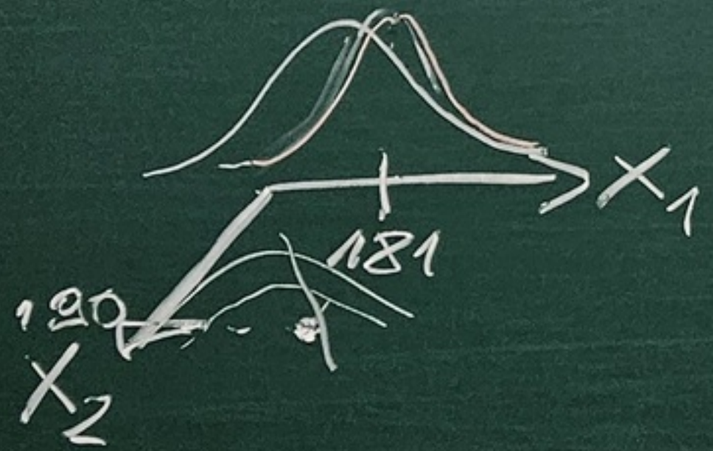
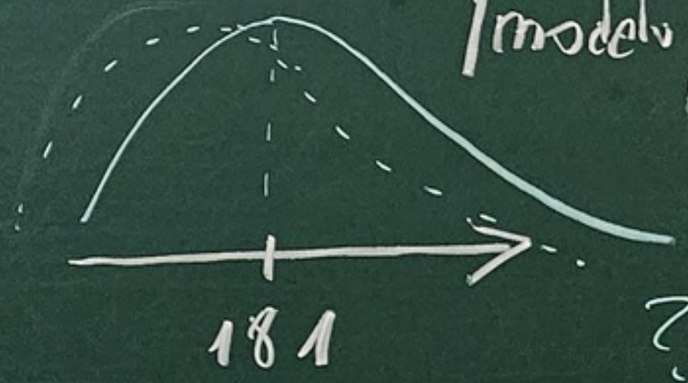
$p(x_1, x_2) = p(x_1)\, p(x_2)$



$p(x_i, \odot)$ dla $i = 1, \ldots, N$

$L(\text{Dane} \mid \text{par. modelu}) = p(\{x_i\}, \odot)$



wart. oczek. czy maks.