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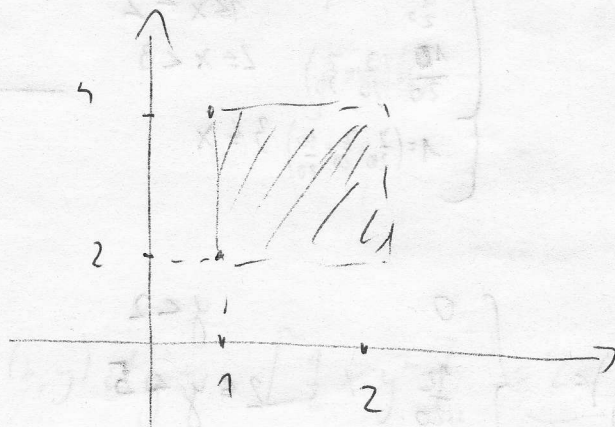
$$F(x,y) = 0 \quad \text{pro } x \in (-\infty, 1] \cup y \in (-\infty, 2]$$

$$F(x,y) = 1 \quad \Leftrightarrow \quad x \rightarrow \infty, y \rightarrow \infty.$$

$$\begin{aligned} c) \quad P(Y > 3X) &= P(X=1, Y=5) + P(X=1, Y=6) = \\ &= \frac{1}{10} + \frac{1}{20} = \underline{\underline{\frac{3}{20}}}; \end{aligned}$$

Pr. a.

$$f(x,y) = \begin{cases} \frac{1}{6}(4x-y) & \text{pro } 1 \leq x \leq 2; 2 \leq y \leq 4 \\ 0 & \text{jinak} \end{cases}$$



1) $1 \leq x \leq 2, 2 \leq y \leq 4$

$$\begin{aligned} F(x,y) &= \int_{-\infty}^x \int_{-\infty}^y f(u,v) du dv = \int_1^x \int_2^y \frac{1}{6}(4u-v) du dv = \int_1^x \left(\frac{2}{3}u - \frac{1}{6}v \right) dv du = \\ &= \int_1^x \left[\frac{2}{3}uv \right]_2^y - \frac{1}{6} \left[\frac{v^2}{2} \right]_2^y du = \int_1^x (y-2) \frac{2}{3}u - \frac{1}{12}(y^2-u) du = \\ &= \underline{\underline{\frac{1}{3}(x^2-1)(y-2) - \frac{1}{12}(y^2-4)(x-1)}}} \end{aligned}$$