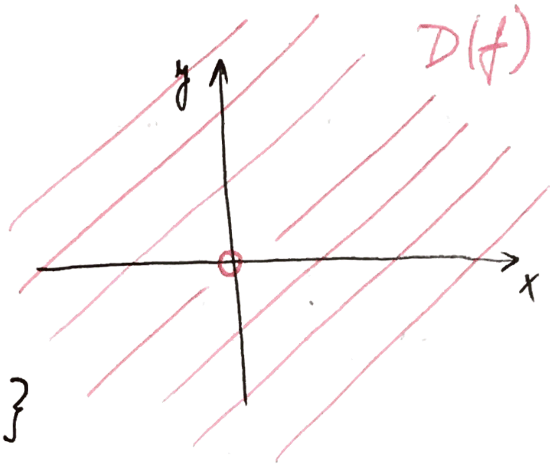
Funkce 2 proměnných

– definiční obor

1) $f(x,y) = \dfrac{xy}{x^2+y^2}$

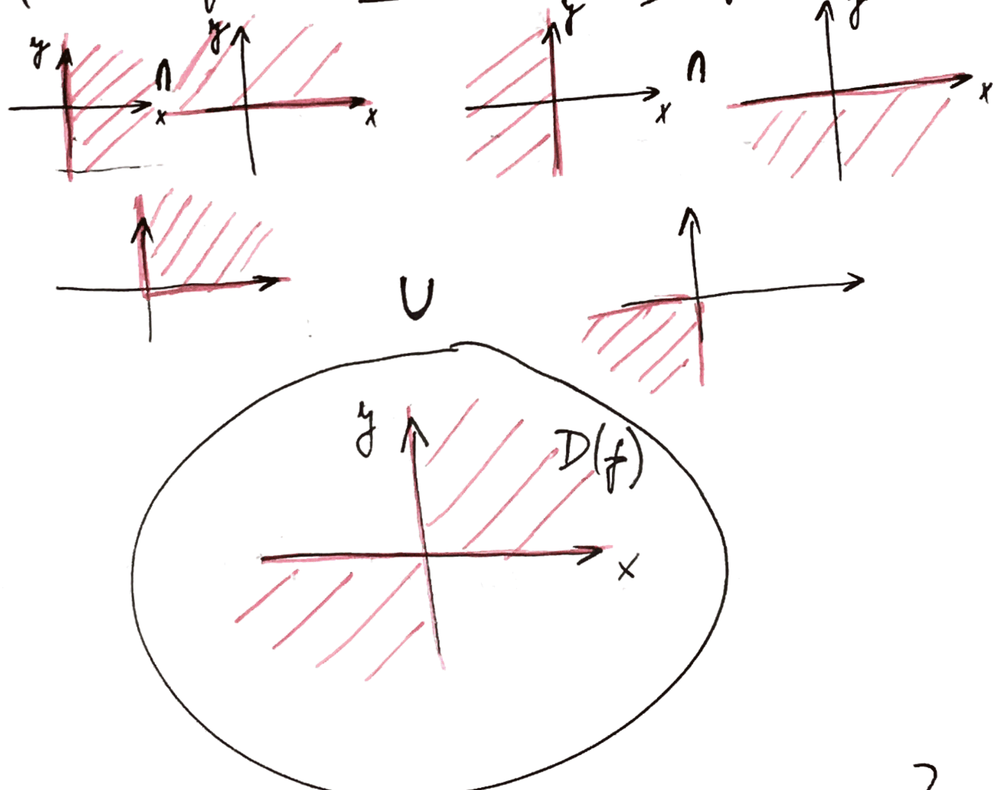


$x^2+y^2 \neq 0 \Rightarrow x \neq 0 \hat{a} y \neq 0$

$D(f) = \{ [x,y] \in \mathbb{R}^2 ;\ x \neq 0 \text{ a } y \neq 0 \}$

2) $f(x,y) = \sqrt{x \cdot y}$

$xy \geq 0 \Rightarrow (x \geq 0 \text{ a } y \geq 0)$ nebo $(x \leq 0 \text{ a } y \leq 0)$

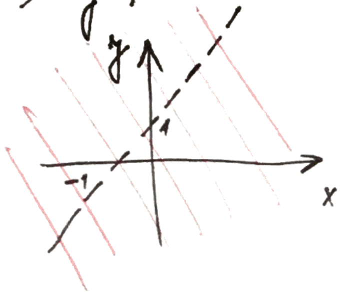


$D(f) = \{ [x,y] \in \mathbb{R}^2 ;\ (x \geq 0 \underset{\wedge}{a} y \geq 0) \underset{\vee}{\text{nebo}} (x \leq 0 \underset{\wedge}{a} y \leq 0) \}$

3) $f(x,y) = \dfrac{\ln(x^2+y^2-1)}{y-x-1}$

$\underline{y-x-1 \neq 0}$ a $x^2+y^2-1>0 \Rightarrow$

$\Rightarrow y \neq x+1$ $\underline{a}$ $x^2+y^2 > 1 = r^2$



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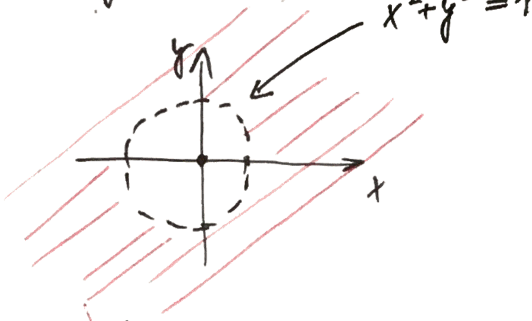

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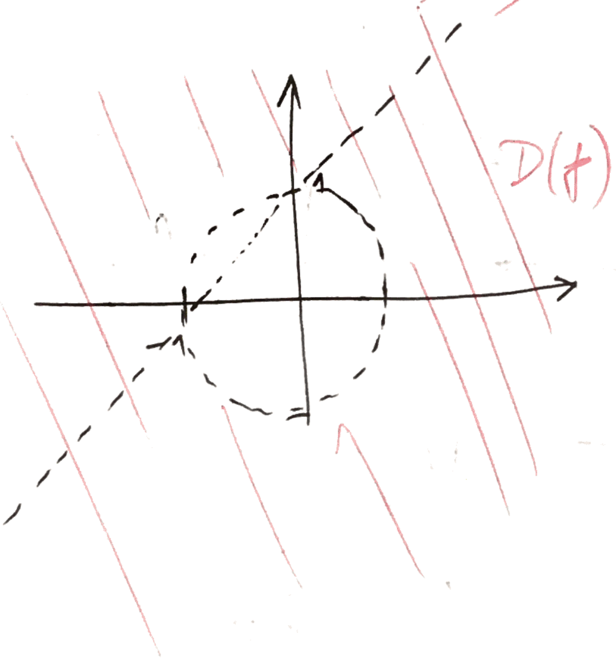

$D(f) = \{ [x,y] \in \mathbb{R}^2 ; \ y \neq x+1 \text{ a } x^2+y^2>1 \}$