

1. minitest - varianta A
 Definiční obor funkce dvou proměnných
 22. 2. 2024

Zapište a zakreslete definiční obor funkce

$$f(x, y) = \sqrt{3 - 2y - y^2} + \log_2(y - x^2 - 3x)$$

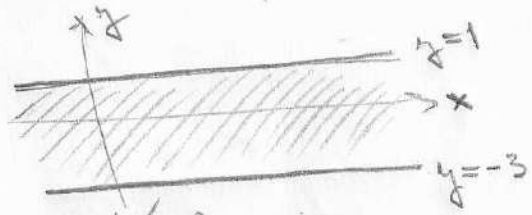
$$1. \quad 3 - 2y - y^2 \geq 0 \quad | \cdot (-1)$$

$$y^2 + 2y - 3 \leq 0$$

$$(y+3)(y-1) \leq 0$$



$$y \in \langle -3; 1 \rangle$$

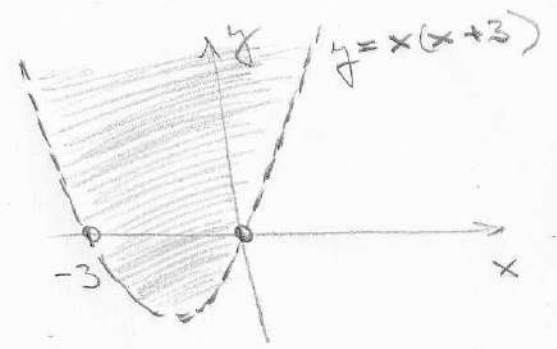


oblast mezi čírkami

$$11. \quad y - x^2 - 3x > 0$$

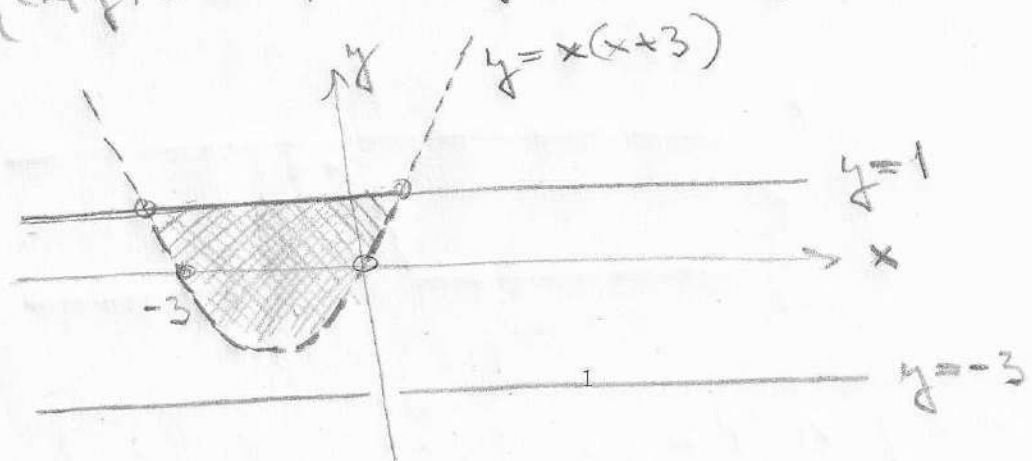
$$y > x^2 + 3x$$

$$y > x(x+3)$$



vnitřní oblast paraboly

$$D_f = \{ (x, y) \in \mathbb{R}^2 \mid -3 \leq y \leq 1 \wedge y > x^2 + 3x \}$$



1. minitest - varianta B
 Definiční obor funkce dvou proměnných
 22. 2. 2024

Zapište a zakreslete definiční obor funkce

$$f(x, y) = \sqrt{2 - y - y^2} + \log_2(y + x^2 - x)$$

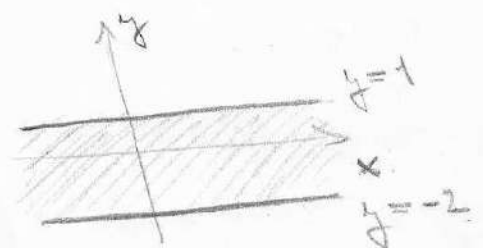
1. $2 - y - y^2 \geq 0 \quad | \cdot (-1)$

$$y^2 + y - 2 \leq 0$$

$$(y+2)(y-1) \leq 0$$



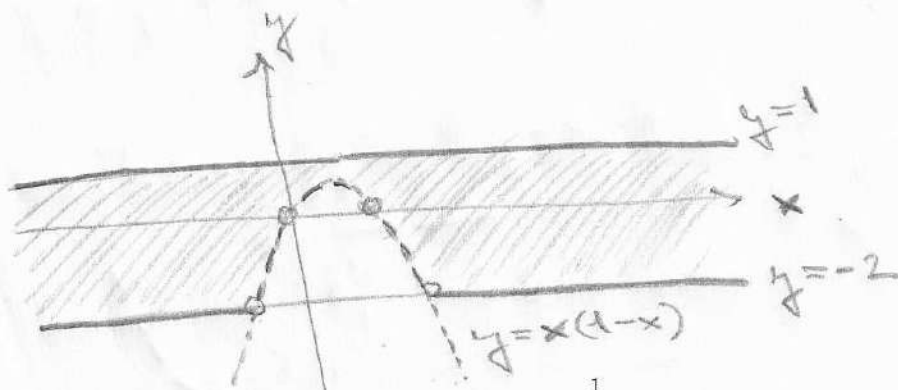
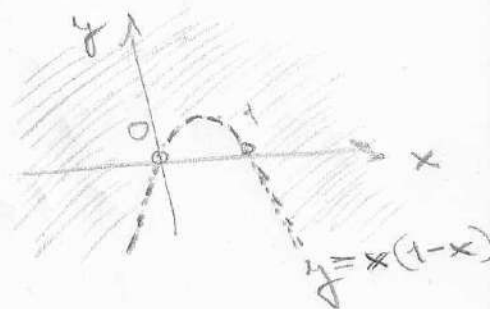
oblast mezi přímkami
 $y \in \langle -2, 1 \rangle$



2. $y + x^2 - x > 0$

$$y > x - x^2 = x(1-x)$$

vnější oblast paraboly



$$D_f = \{(x, y) \in \mathbb{R}^2; -2 \leq y \leq 1 \wedge y > x - x^2\}$$