

Definiční obor

$$f(x) = \sqrt{\frac{x+6}{x^2-6x+8}} + \log(x^2-9)$$

I) Odmocnina

$$\frac{x+6}{x^2-6x+8} \geq 0$$

II) jmenovatel

$$x^2-6x+8 \neq 0$$

III) logaritmus

$$x^2-9 > 0$$

Nulové body

z čitatele:

$$x+6=0$$

$$\underline{x_1 = -6}$$

ze jmenovatele:

$$x^2-6x+8=0$$

$$(x-4)(x-2)=0$$

$$\underline{x_2 = 4} \quad \underline{x_3 = 2}$$

$$x^2-6x+8=0$$

$$\underline{x_1 = 4}$$

$$\underline{x_2 = 2}$$

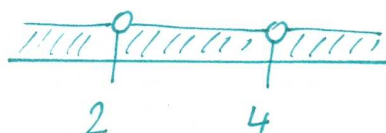
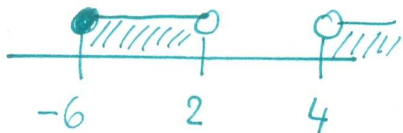
$$x^2-9=0$$

$$x^2=9$$

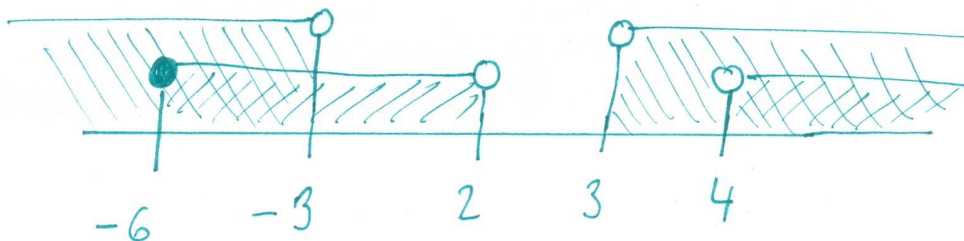
$$|x|=3$$

$$\underline{x_1 = -3}$$

$$\underline{x_2 = 3}$$

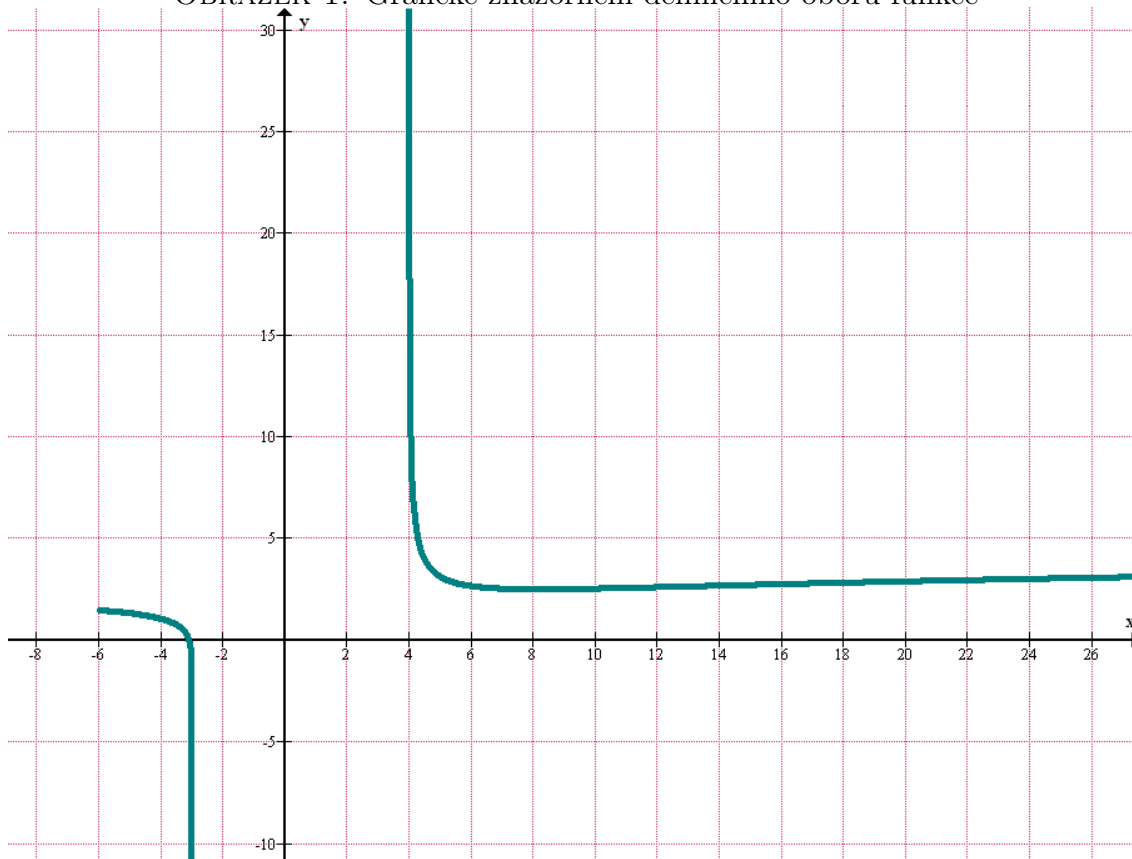


Průnik po číselné



$$\underline{\underline{X \in (-6; -3) \cup (4; \infty)}}$$

OBRÁZEK 1. Grafické znázornění definičního oboru funkce



Zdroj: program Graph