Definiční obor

$$f(x) = \sqrt{x^2-4x+3}^{(1.)} + \sqrt{\ln(5-x)}^{(2.)}$$

I) odmocnina 1. | II) odmocnina 2. | III) logaritmus

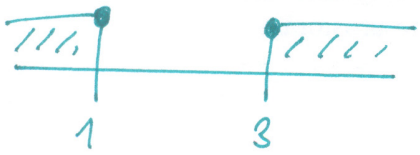
$x^2-4x+3 \geq 0$ | $\ln(5-x) \geq 0$ | $5-x > 0$

Nulové body

$x^2-4x+3=0$

$(x-3)(x-1)=0$

$x_1 = 3 \quad x_2 = 1$

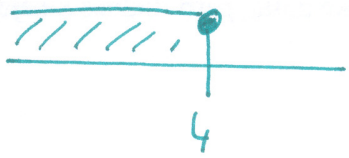


$\ln(5-x)=0$

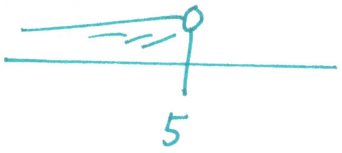
$5-x=e^0$

$5-x=1 \quad /+x\ /-1$

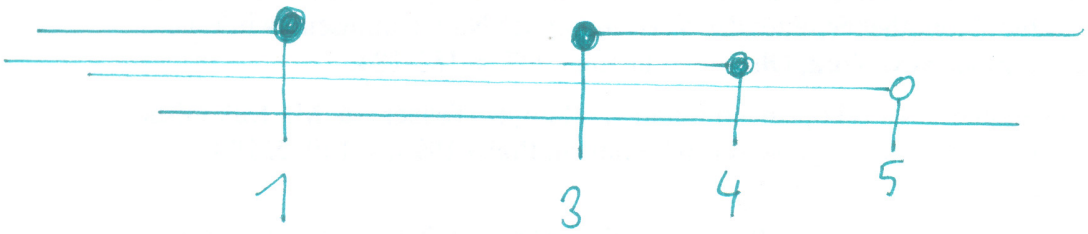
$x=4$



$5=x$

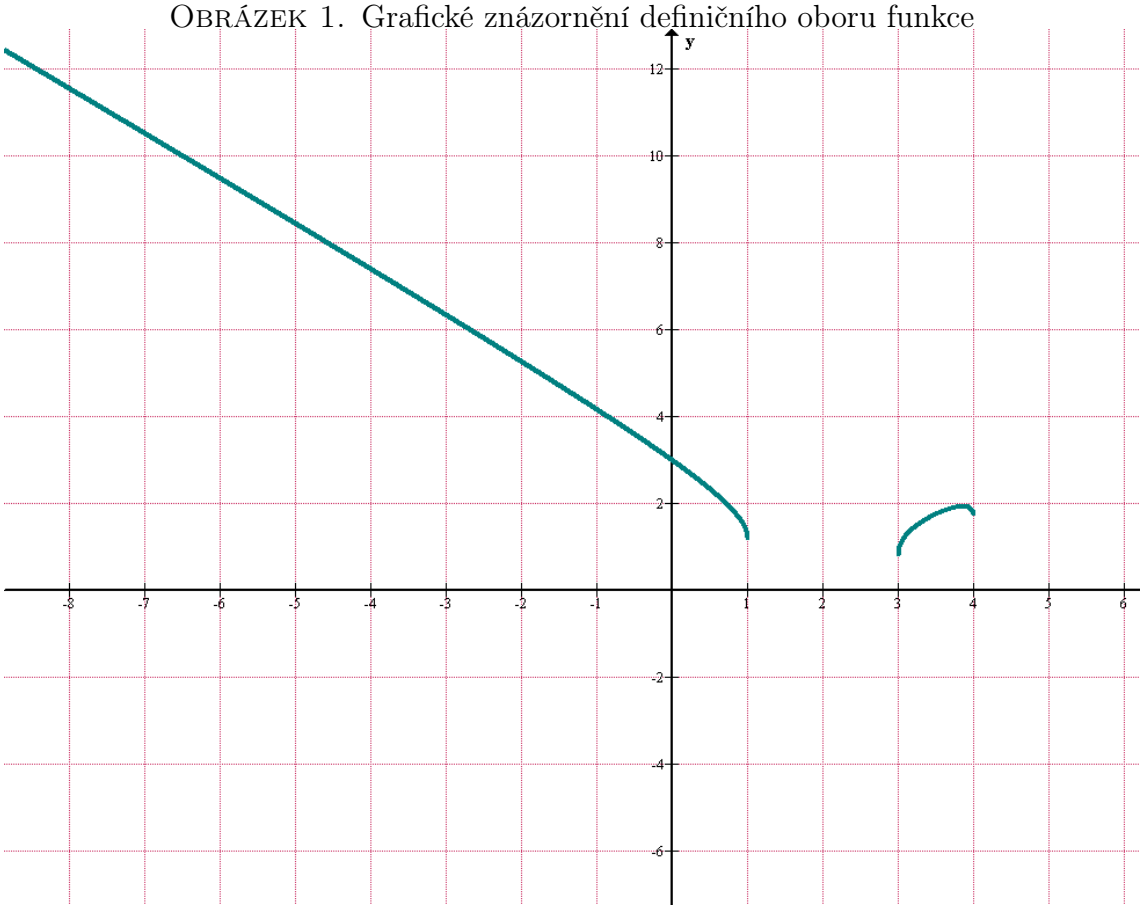


Průnik dílčích podmínek



$x \in \langle -\infty; 1\rangle \cup \langle 3; 4\rangle$

Obrázek 1. Grafické znázornění definičního oboru funkce



Zdroj: program Graph