Definiční obor

$$f(x)=\sqrt{64-x^2}-\ln\frac{x-3}{x^2-4x-5}$$

I) odmocnina: $64-x^2\geq 0$

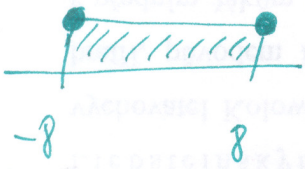
II) logaritmus: $\frac{x-3}{x^2-4x-5}>0$

III) jmenovatel: $x^2-4x-5\neq 0$

Nulové body

$x^2=64$

$x=\pm 8$



z čitatele:

$x=3$

ze jmenovatele:

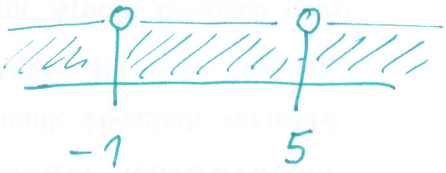
$x^2-4x-5=0$

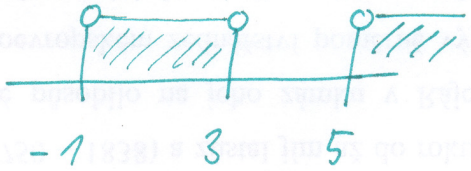
$x_1=5 \quad x_2=-1$

$x^2-4x-5=0$

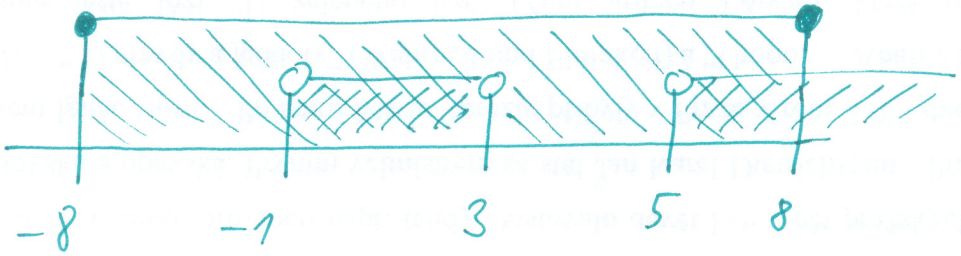
$(x-5)(x+1)=0$

$x_1=5 \quad x_2=-1$



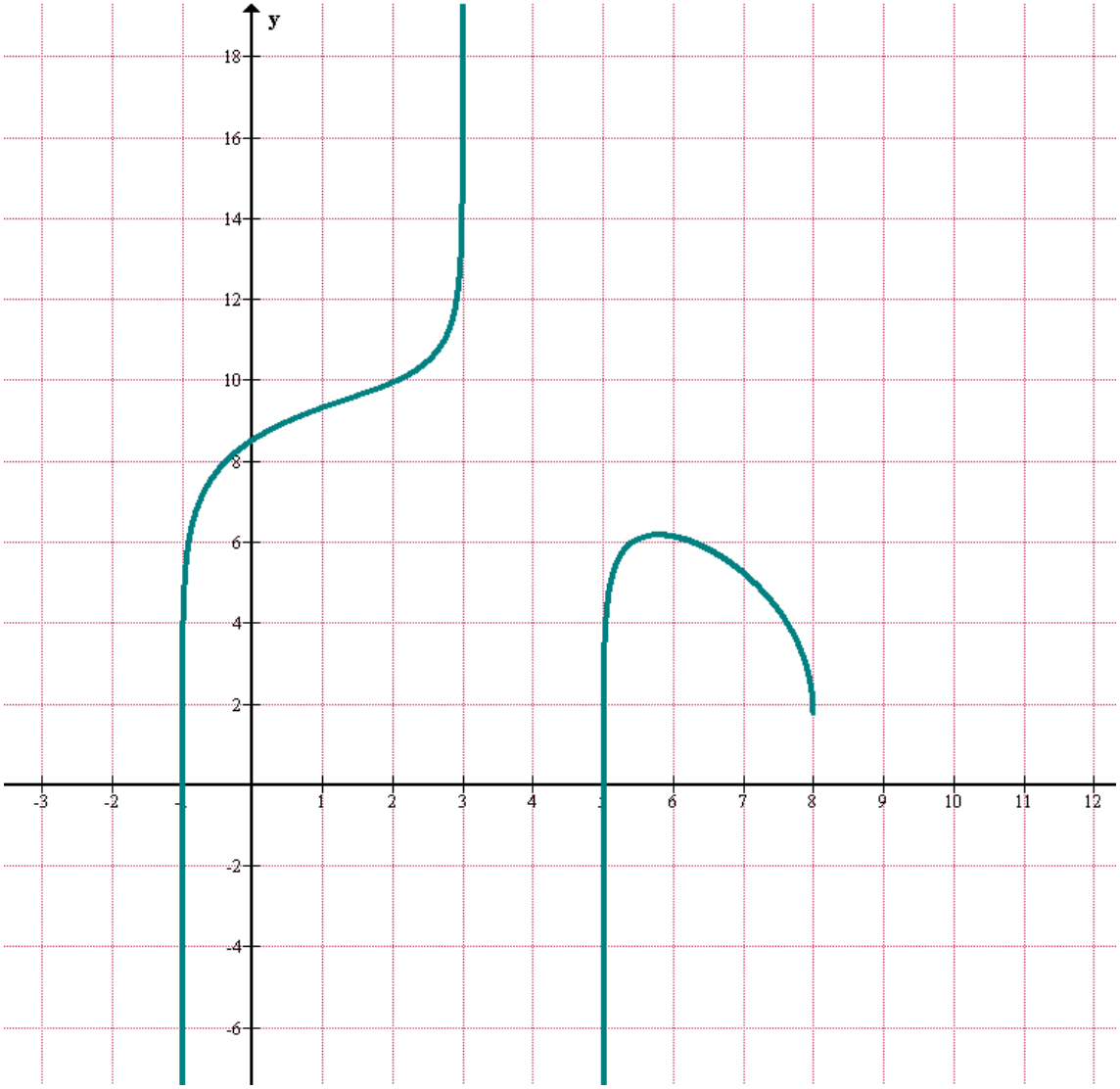


Průnik dílčích podmínek:



$x\in(-1;3)\cup(5;8\rangle$

Obrázek 1. Grafické znázornění definičního oboru funkce



Zdroj: program Graph