

Definiční obor

$$y = \ln \frac{x^2 - 2x - 15}{x - 1} + e^{\sqrt{x^2 - 16}}$$

I) logaritmus

$$\frac{x^2 - 2x - 15}{x - 1} > 0$$

II) jmenovatel

$$x - 1 \neq 0$$

III) odmocnina

$$x^2 - 16 \geq 0$$

Nulové body

čitatel:

$$x^2 - 2x - 15 = 0$$

$$(x - 5)(x + 3) = 0$$

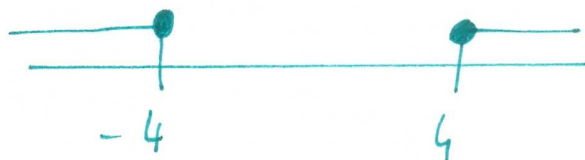
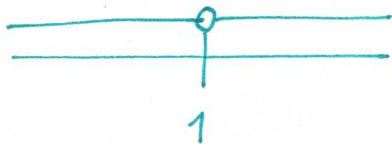
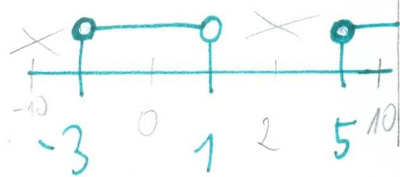
$$x_1 = 5 \quad x_2 = -3$$

jmenovatel:

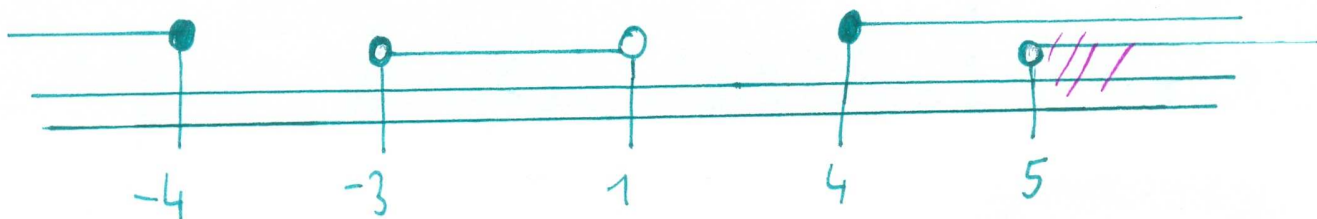
$$x_3 = 1$$

$$x = 1$$

$$|x| = 4$$

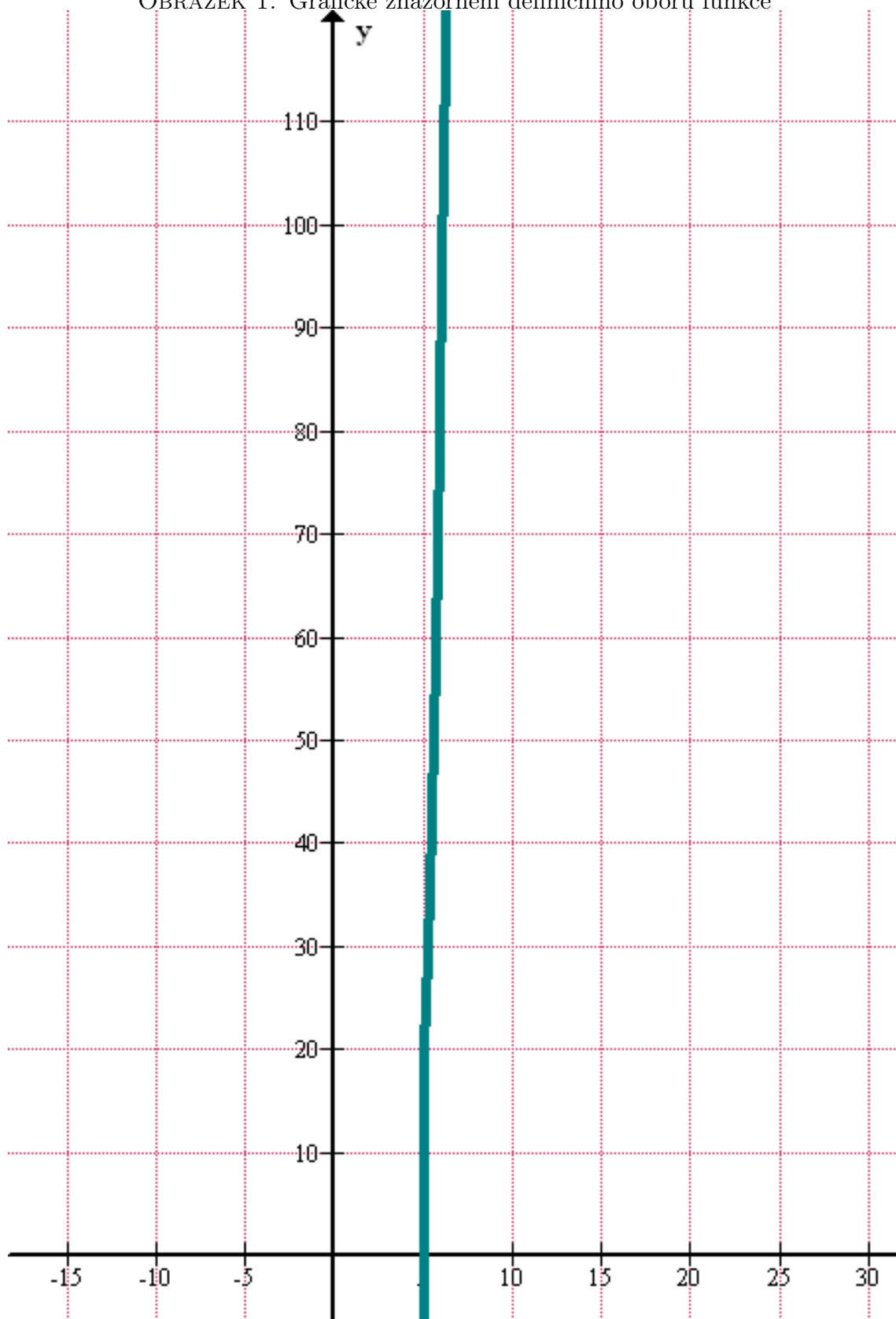


Průnik definičních podmínek



$$\underline{x \in (5; \infty)}$$

OBRÁZEK 1. Grafické znázornění definičního oboru funkce



Zdroj: program Graph