

# Definiční obor

$$f(x) = e^{\sqrt{49-x^2}} + \ln \frac{x^2-4x-12}{x+10}$$

I) odmocnina  
 $49 - x^2 \geq 0$

II) logaritmus  
 $\frac{x^2-4x-12}{x+10} > 0$

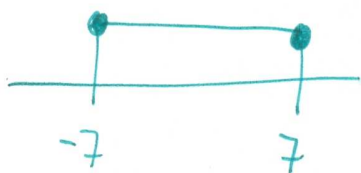
III) jmenovatel  
 $x+10 \neq 0$

musíme

hledat

$$x^2 = 49$$

$$|x| = 7$$



číslo

$$x^2 - 4x - 12 = 0$$

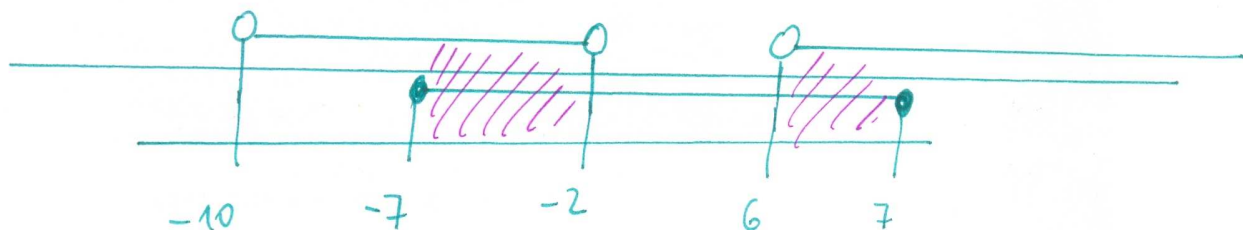
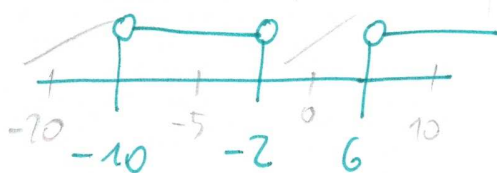
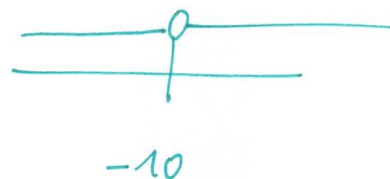
$$(x+2)(x-6) = 0$$

$$x_1 = -2 \quad x_2 = 6$$

jmenovatel

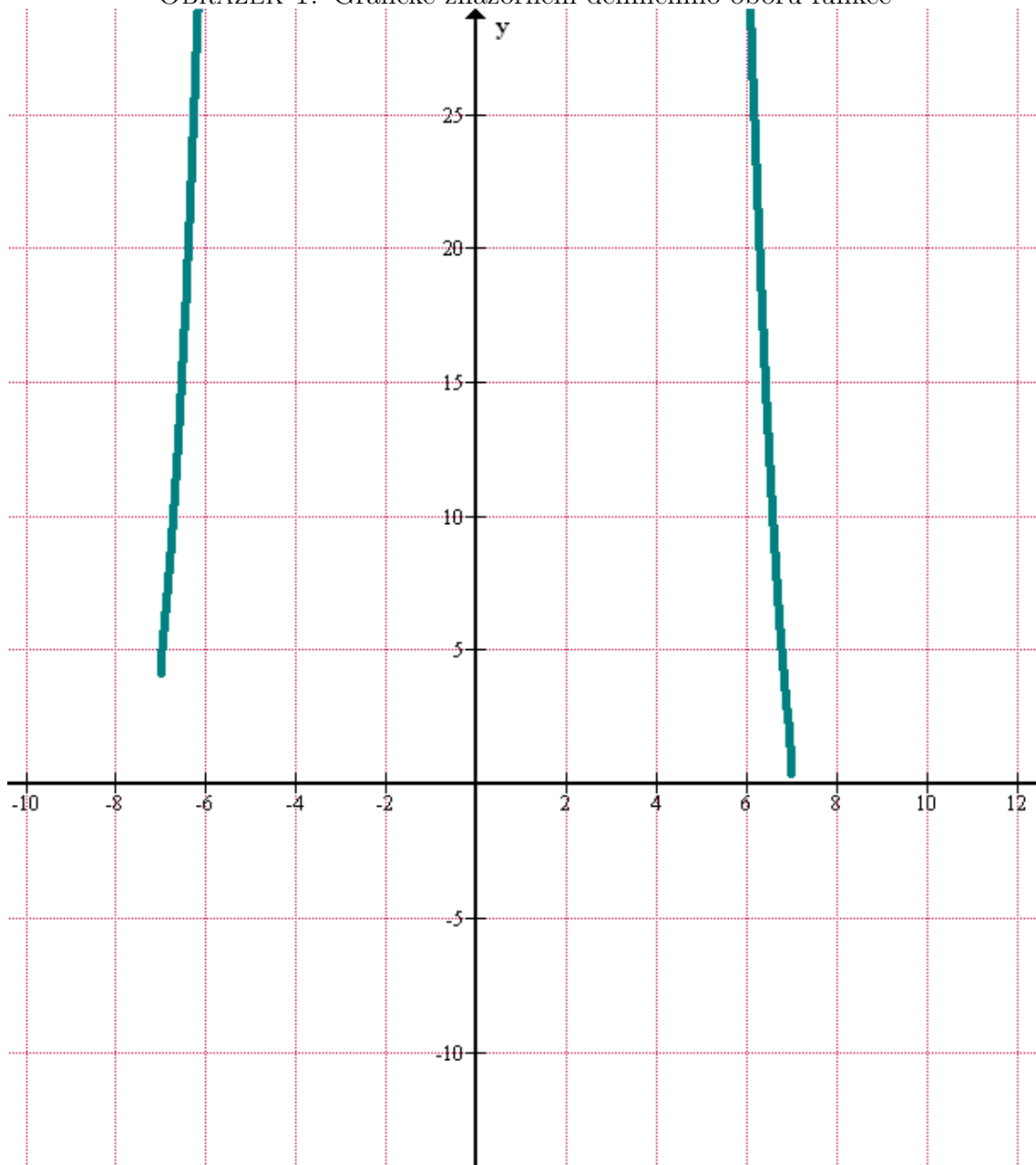
$$x_3 = -10$$

$$x = -10$$



$$\underline{x \in (-7, -2) \cup (6, 7)}$$

OBRÁZEK 1. Grafické znázornění definičního oboru funkce



Zdroj: program Graph