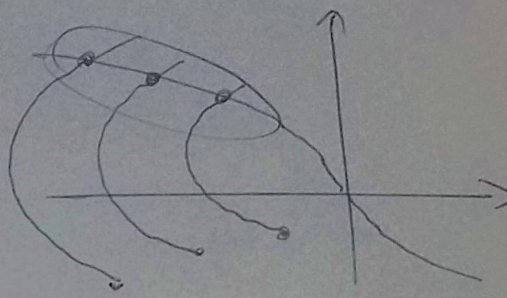
Konačno se dobija: [U knjizi stoji ⊕, vjerovatno je greška u kucanju.]

$$v(x_1,x_2) = -(t_1+t_2) = -x_2 - 2\sqrt{x_1 \mp \frac{1}{2}x_2^2} \quad u \ \text{I}$$

2° Za oblast II analogno:

·) $\alpha = 1 \Rightarrow \begin{cases} \dot{x}_1 = x_2 \\ \dot{x}_2 = 1 \end{cases} \Rightarrow x_2(t) = t + x_2$ (**)

$$\begin{cases} x_2^2(t) = 2x_1(t) + (x_2^2 - 2x_1) \\ x_1(t) = -\frac{1}{2}x_2^2(t) \end{cases} \Rightarrow$$



$$\Rightarrow x_2^2(t_1) = -x_2^2(t_1) + (x_2^2 - 2x_1)$$

$$\Rightarrow 2x_2^2(t_1) = x_2^2 - 2x_1 \Rightarrow x_2(t_1) = \sqrt{\frac{1}{2}x_2^2 - x_1} \quad (\text{II kvad.})$$

(**) $\Rightarrow \sqrt{\frac{1}{2}x_2^2 - x_1} = t_1 + x_2 \Rightarrow t_1 = -x_2 + \sqrt{\frac{1}{2}x_2^2 - x_1}$

$\alpha = -1 \Rightarrow \begin{cases} \dot{x}_1 = x_2 \\ \dot{x}_2 = -1 \end{cases} \Rightarrow x_2(t) = -t + x_2(0)$

$x_2(t_2) = 0 \Rightarrow -t_2 + \sqrt{\frac{1}{2}x_2^2 - x_1} = 0 \Rightarrow t_2 = \sqrt{\frac{1}{2}x_2^2 - x_1}$

$$v(x_1,x_2) = -(t_1+t_2) = x_2 - 2\sqrt{\frac{1}{2}x_2^2 - x_1} \quad u \ \text{II}$$

[Ovaj put isto kao u knjizi]

Sve ukupno:

$$v(x_1,x_2) = \begin{cases} -x_2 - 2\sqrt{x_1 - \frac{1}{2}x_2^2} & u \ \text{I oblasti} \\ x_2 - 2\sqrt{-x_1 + \frac{1}{2}x_2^2} & u \ \text{II oblasti} \end{cases}$$