[9F]

(2) $y' = 2\sqrt{|y|}\cdot \exp(-x)$

$y \equiv 0 \; ; \; x \in \mathbb{R}$ 1

$y>0$: $y' = 2\sqrt{y}\exp(-x)$

$\frac{y'}{2\sqrt{y}} = \exp(-x)$ # 1

$\sqrt{y} = C - \exp(-x)$

dishure: mtrè $C>0$.

$C > \exp(-x)$

$\ln C > -x$

$y(x) = (C - e^{-x})^2 \; ; \; x \in (-\ln C, \infty)$ 2

$y<0$: $y' = \sqrt{-y}\exp(-x)$

$-\sqrt{-y} = C - \exp(-x)$

dishure: $C \leq 0$: $x \in \mathbb{R}$ 2

$C>0$ $x \in (-\infty, -\ln C)$

$y = -(C - \exp(-x))^2$ 1

---

mozjem: 2

$$y(x) = \begin{cases} -(C_1 - \exp(-x))^2 & x < -\ln C_1 \\ 0 & x \in [-\ln C_1, -\ln C_2] \\ (C_2 - \exp(-x))^2 & x > -\ln C_2 \end{cases}$$