$$\underbrace{e^{y}}_{M(t,y)} + \underbrace{(t \cdot e^{y} - 2y)}_{N(t,y)} \cdot y' = 0 \quad , \quad y(1) = 0$$

$M \in C(\mathbb{R}^2),\ N \in C(\mathbb{R}^2)$

$$\frac{\partial V(t,y)}{\partial t} = e^{y} \Rightarrow V(t,y) = t \cdot e^{y} + \chi(y)$$

$$\frac{\partial V(t,y)}{\partial y} = t \cdot e^{y} + \chi'(y) = te^{y} - 2y \Rightarrow \chi'(y) = -2y$$

$\chi(y) = -y^2$, tedy $\quad V(t,y) = t \cdot e^{y} - y^2$

$\varphi: y = \varphi(t) \qquad t \cdot e^{y} - y^2 = 1,\ y(1) = 0.$