$$M(x,y) + N(x,y)\frac{dy}{dx} = 0$$

$$P(x)\,Q(y) + R(x)\,S(y)\frac{dy}{dx} = 0$$

$$\frac{P(x)\,\cancel{Q(y)}}{R(x)\,\cancel{Q(y)}} + \frac{\cancel{R(x)}\,S(y)}{\cancel{R(x)}\,Q(y)}\frac{dy}{dx} = 0$$

$$\frac{P(x)}{R(x)} + \frac{S(y)}{Q(y)}\frac{dy}{dx} = 0$$

$$\frac{P(x)}{R(x)}\,dx + \frac{S(y)}{Q(y)}\,dy = 0$$

Sol. gral $\displaystyle\int \frac{P(x)}{R(x)}\,dx + \int \frac{S(y)}{Q(y)}\,dy = C_1$

$$\frac{du}{dx} = \frac{\sqrt{1-u^2}}{x}$$

$$P(x) = -\frac{1}{x}$$

$$Q(u) = \sqrt{1-u^2}$$

$$\frac{du}{\sqrt{1-u^2}} = \frac{dx}{x}$$

$$\int P(x)\,dx + \int \frac{du}{Q(u)} = C_1$$

$$-\frac{dx}{x} + \frac{du}{\sqrt{1-u^2}} = 0$$

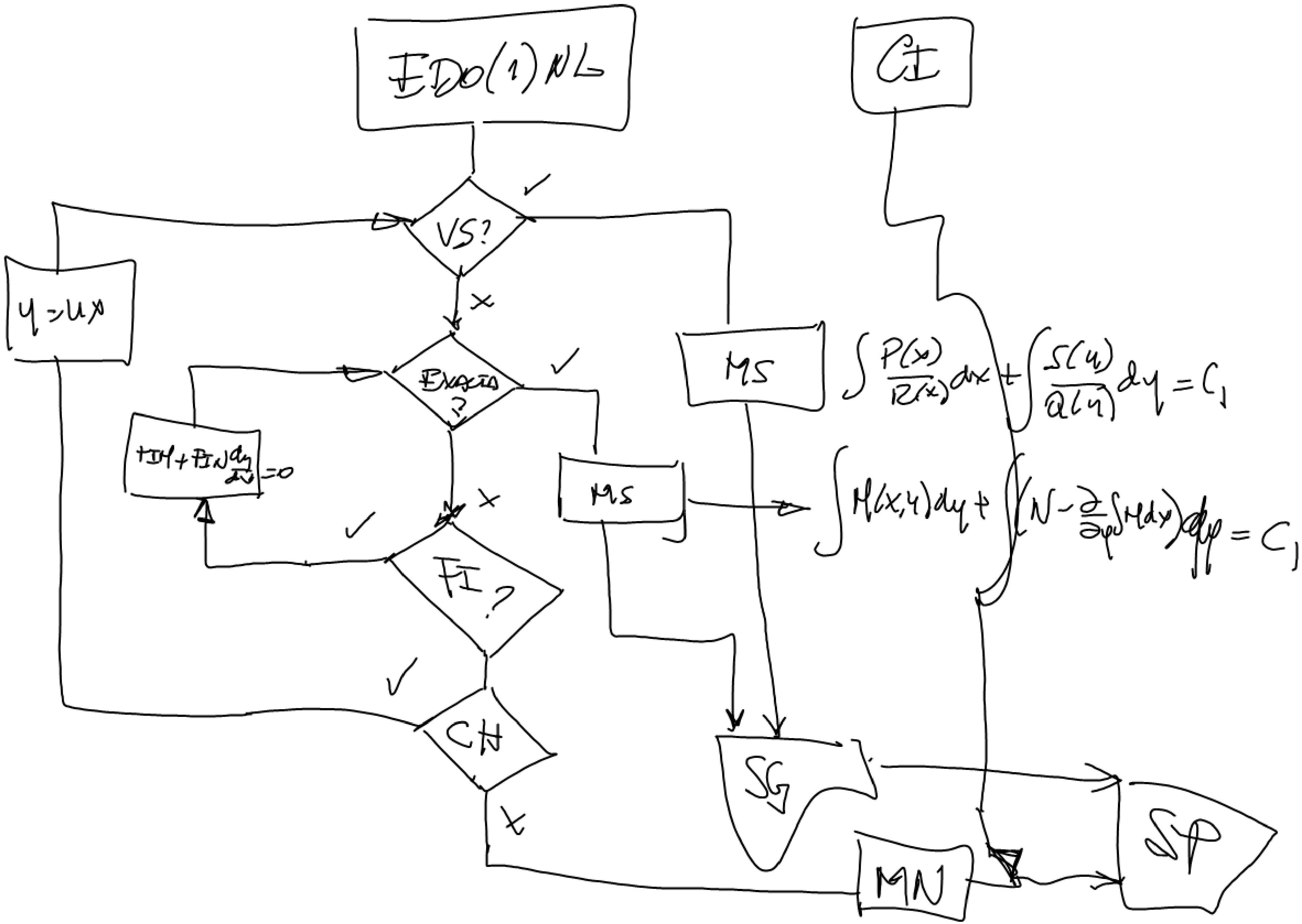
SG

$$-\int \frac{dx}{x} + \int \frac{du}{\sqrt{1-u^2}} = C_1$$

$$M(x,y) + N(x,y)\frac{dy}{dx} = 0$$

$$\frac{\partial M}{\partial y} \equiv \frac{\partial N}{\partial x} \quad \text{es exacta}$$

$$\text{Sol} \Rightarrow \int M(x,y)\,dx + \int\left(N - \frac{\partial}{\partial y}\int M\,dx\right)dy = C_1$$


EDO(1)NL
CI
VS?
y = ux
MS
∫ P(x)/R(x) dx + ∫ S(y)/Q(y) dy = C1
Exacta ?
FI?
CH
SG
MN
SP