

$$26. \quad \frac{dx}{dt} = y$$

$$\frac{dy}{dt} = -x - x^3$$

$$\frac{dy}{dx} = \frac{-x - x^3}{y} \quad | \cdot dx$$

$$y dy = \frac{-x - x^3}{y} dx \quad | \cdot y$$

$$y dy = -x - x^3 dx \quad | \int$$

$$\int y dy = \int -x - x^3 dx$$

$$\frac{y^2}{2} = -\frac{x^2}{2} - \frac{x^4}{4} + C_1 \quad | \cdot 4$$

$$2y^2 = -2x^2 - x^4 + 4C_1 \quad C = 4C_1$$

$$2y^2 + 2x^2 + x^4 = C$$