$$\frac{dy}{dx} = -\frac{x}{y}$$

$$y\,dy = -x\,dx$$

$$\int y\,dy = \int -x\,dx$$

$$\frac{y^2}{2} + C_1 \qquad -\frac{x^2}{2} + C_2$$

$$\frac{y^2}{2} + C_1 = -\frac{x^2}{2} + C_2$$

$$\frac{y^2}{2} = -\frac{x^2}{2} + C_2 - C_1$$

$$= -\frac{x^2}{2} + C_3$$

$$\sqrt{2 \cdot \frac{y^2}{2}} = \sqrt{2 \cdot \left(-\frac{x^2}{2} + C_3\right)}$$

$$y \qquad \sqrt{2C_3 - x^2}$$

$$\sqrt{C_4 - x^2}$$