

Partial Corde

$$x^2 - xy + y^3 = 10$$

$$x^2 \frac{dx}{dy} - xy \frac{dx}{dy} + y^3 \frac{dy}{dx} = 10 \frac{dx}{dy}$$

$$2x - x \cdot 1 + y \cdot 1 + 3y^2 \cdot y' = 0$$

$$2x - x + y + 3y^2 \cdot y' = 0$$

$$y' = -2x + x + y + 3y^2$$

$$y' = -x + 4y^2$$

$$y' = \frac{-x}{4y^2} \times \frac{dy}{dx}$$

$$y' = \frac{(4y^2) \times (-x) - (-x) \frac{dy}{dx} - (4y^2) \frac{dx}{dy} \times (-x)}{(4y^2)^2}$$

$$y' = \frac{(4y^2) \times (-1) - (2)(4)(y \times y') \times (-x)}{4y^4}$$

$$y'' = \frac{(4y^2 \times -1) - (8y \times y' \times -x)}{4y^4}$$

$$= \frac{4y^2 - 8yx \times y'}{4y^4}$$

$$= \frac{4y^2 - 8yx \times \left(\frac{4y^2}{1}\right)}{4y^4} = \frac{4y^2 - 8yx \cdot y}{4y^4}$$

$$= \frac{(4y^2 - 8xy)/y}{4y^4} \quad \left| \quad \frac{1}{1} - \frac{8xy}{y} \right.$$

$$= \frac{y - 8xy}{y^4} = y^8 \quad = \frac{y - 8xy}{y^8} \quad y' = \frac{y(1 - 8x)}{y^8}$$

$$R // \boxed{y'' = \frac{y(1 - 8x)}{y^8}}$$

$$x * y = \cos(x * y)$$

$$\frac{d}{dx}(x * y) = x \frac{dy}{dx} + 1$$

$$y' = x \cdot 0 + y = y$$

$$y = -\sin(x * y) \frac{dx}{dx}$$

$$y = -\sin(x * y) * (x \frac{dx}{dx} + 1)$$

$$y = -\sin(x * y) * (x \cdot 0 + 1) * y$$

$$y = -\sin(x * y) * y'$$

R/1

$$\boxed{y' = \frac{-\sin(x * y)}{y}}$$