

4.3.

$$y^2 (\ln x) + y = 3x$$

point (1, 3)

$$2y \frac{dy}{dx} \cdot \ln x + y^2 \cdot \frac{1}{x} + \frac{dy}{dx} = 3$$

$$2 \cdot 3 \cdot \frac{dy}{dx} \cdot \underbrace{\ln 1}_{\substack{= \\ 0}} + 3^2 \cdot \frac{1}{1} + \frac{dy}{dx} = 3$$

$$\therefore \frac{dy}{dx} = -6$$

Eq. of tan.

$$(y - 3) = (-6)(x - 1)$$