

1)

$$y = 3x + 2 \quad \text{--- (1)}$$

$$y = 0.3x + 3 \quad \text{--- (2)}$$

$$\frac{dy}{dx} \text{ of eq (1)} = 3$$

$$\frac{dy}{dx} \text{ of eq (2)} = \frac{1}{3}$$

$$m_1 \times m_2 = 3 \times \frac{1}{3} = 1 \quad \therefore \text{They are not } \perp$$

2)

$$y = \frac{2}{3}x + \frac{7}{3} \quad \text{--- (1)}$$

$$y = x + 1 \quad \text{--- (2)}$$

$$\frac{dy}{dx} \text{ of eq (1)} = \frac{2}{3}$$

$$\frac{dy}{dx} \text{ of eq (2)} = 1$$

$$m_1 \times m_2$$

$$\frac{2}{3} \times 1 = \frac{2}{3} \quad \text{(They are not } \perp)$$