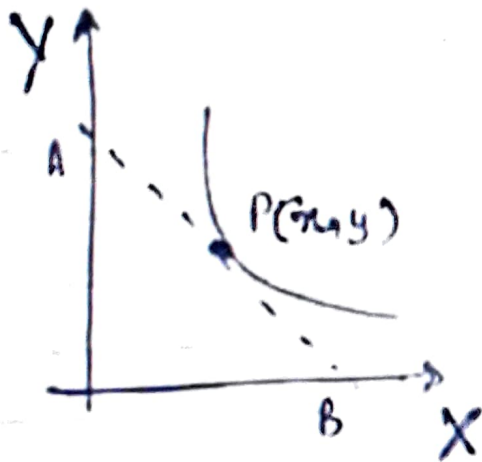


Q1. Find eqn of curve in which the position of the tangent included between coordinate axis is bisected by the point of contact

$$\text{eqn of AB: } (Y-y) = \frac{dy}{dx} (X-x)$$



$$A \left[0, y - \left(\frac{dy}{dx} \right) x \right] \quad P(x, y)$$

$$B \left[\text{something}, 0 \right]$$

ATQ,

$$\frac{\left[y - \left(\frac{dy}{dx} \right) x + 0 \right]}{2} = y \quad \text{--- (1)}$$

Solving the diff eqn (1) we get

$$\boxed{xy = c}$$

where c is the constant.