

A solution of the differential equation *(1999 – 2 Marks)*

$$\left(\frac{dy}{dx}\right)^2 - x \frac{dy}{dx} + y = 0 \text{ is}$$

(a) $y = 2$

(b) $y = 2x$

(c) $y = 2x - 4$

(d) $y = 2x^2 - 4$

(c)
$$\left(\frac{dy}{dx}\right)^2 - x \frac{dy}{dx} + y = 0.$$

By actual verification we find that the choice (c),
i.e. $y = 2x - 4$ satisfies the given differential equation.