Q) Find points on y-axis whose perpendicular distance from line $4x - 3y - 12 = 0$ is 3.

Let, the point be $(0, k)$

$$\left| \frac{4(0) - 3(k) - 12}{\sqrt{4^2 + 3^2}} \right| = 3$$

$$|3k + 12| = 15$$

$$|k + 4| = 5$$

$$k + 4 = \pm 5$$

$$k = -9 \text{ or } k = 1.$$

Pts are $(0, -9)$ or $(0, 1)$