

Most Repeated Questions in JEE Main Math from Linear Differential Equation

Q: . Let $y = y(x)$ be the solution of the differential equation $(xy - 5x^2 \sqrt{1 + x^2})dx + (1 + x^2)dy = 0$ $y(0) = 0$ Then $y(\sqrt{3})$ is equal to

Q: Let a curve $y = f(x)$ pass through the points $(0, 5)$ and $(\log_e 2, k)$. If the curve satisfies the differential equation $2(3 + y)e^{2x} dx - (y + e^{2x})dy = 0$, then k is equal to

Q: Let $y = y(x)$ be the solution of the differential equation $(x^2 + 4)^2 dy + (2x^3y + 8xy - 2)dx = 0$. If $y(0) = 0$, then $y(2)$ is equal to