

系級：_____ 學號：_____ 姓名：_____

1. 試解：(1) $(2xe^x - y^2)dx + 2ydy = 0$ (2) $(4x + 3y^2)dx + 2xydy = 0$
2. 試解：(1) $\frac{dy}{dx} = \frac{y}{2x + y^3 e^y}$ (2) $(2\cosh y + 3x)dx + x \sinh y dy = 0$
3. 試解： $(2y^2 - 9xy)dx + (3xy - 6x^2)dy = 0$
4. 試解：(1) $x\frac{dy}{dx} - 2y = 16 + \frac{2}{x} - \frac{15}{x^2}$ (2) $x\frac{dy}{dx} + y = 5x^5$
5. 試解：(1) $(\sin x)y' + (\cos x)y = \cos 2x$ (2) $(1 - t^2)y' - 2ty = 2te^t$