

1. $y(x) = c_1 e^{5x} + c_2 e^{3x}$, 求原 *Differential Equation* 為何?

2. 下列何者具唯一解?

1. $y' = e^{x^2 y}, y(0) = 1$

2. $y' = \sqrt{2 - y}, y(0) = 0$

3. $y' = \sqrt{2 - y}, y(0) = 2$

4. $y' = \sqrt{4 - y^2}, y(0) = 2$

3. Solve: $3x^2 y dx + (x^3 - 5) dy = 0$