

系級：\_\_\_\_\_ 學號：\_\_\_\_\_ 姓名：\_\_\_\_\_

試求下述微分方程式：

1.  $2yy' = e^{x-y^2}$ ,  $y(4) = -2$

2.  $x\sin(y) \cdot y' = \cos(y)$

3.  $y' = 3x^2(y+2)$ ,  $y(2) = 8$

4.  $y' = 1 + 4y^2$ ,  $y(1) = 0$

5.  $yy' = 2x \cdot \sec(3y)$ ,  $y\left(\frac{2}{3}\right) = \frac{\pi}{3}$

6.  $x^2y' = x^2 + y^2$

7.  $(x-2y)y' = 2x-y$

8.  $y' = \frac{x+2y+7}{-2x+y-9}$