

Quizzes for Sections 02 and 05

Math 202-151

1) Solve $\frac{dy}{dx} = \frac{1-x-y}{x+y}$

2) Solve $x^2 \frac{dy}{dx} = y - xy$, $y(-1) = -1$

3) Solve using power series nearby 0
 $y' - 3xy = 0$

4) Solve $\begin{cases} x' = 5x - 4y \\ y' = x + 2z \\ z' = 2y + 5z \end{cases}$

5) Solve

$$\begin{pmatrix} x_1 \\ x_2 \end{pmatrix}' = \begin{pmatrix} -1 & 0 \\ 0 & 3 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} + \begin{pmatrix} z \\ 2t+1 \end{pmatrix}$$