King Fahd University of Petroleum & Minerals Department of Math & Stat Math-202, Section # 2 QUIZ NO.4

Name: _	 ID #:

1) Solve
$$X' = \begin{pmatrix} 5 & -4 & 0 \\ 1 & 0 & 2 \\ 0 & 2 & 5 \end{pmatrix} X$$
 /12

$$\frac{dx}{dt} = 5x + y$$

$$\frac{dy}{dt} = -2x + 3y$$
/8

$$X' = \begin{pmatrix} 0 & 2 \\ -1 & 3 \end{pmatrix} X + \begin{pmatrix} 1 \\ -1 \end{pmatrix} e^t$$
/10