

Name: _____ ID #: _____ Serial #: _____

1. Solve the system: $x' = \frac{1}{2}y$, $y' = -8x$

2. Solve the system $X' = AX$ where $A = \begin{bmatrix} 3 & 1 & 1 \\ -5 & -3 & -1 \\ 5 & 5 & 3 \end{bmatrix}$, given that 3 is an eigenvalue of A .