HW5

October-28-12 7:43 PM

$$A: \begin{cases} \dot{x} = x - 2y & x(0) = 3 \\ \dot{y} = 4y - 2x & y(0) = 1 \end{cases}$$

$$\begin{pmatrix} 1 & -2 \\ -2 & 4 \end{pmatrix} \quad s = 5 \quad p = 0 \quad 0, 5$$

$$B: \begin{cases} \dot{x} = x - 5y & x(0) = 3 \\ \dot{y} = 2x - 5y & y(0) = 1 \end{cases}$$

$$\begin{pmatrix} 1 & 2 \\ -5 & -5 \end{pmatrix} \quad s = -4 \quad p = 5 \quad -5, 1$$

$$C: \begin{cases} \dot{x} = y & x(0) = 1 \\ \dot{y} = z & y(0) = 2 \\ \dot{z} = -6x - 11y - 6z & z(0) = -1 \end{cases}$$