

Handwritten HW 29

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10. Construct the general solution of $\mathbf{x}' = A\mathbf{x}$ involving complex eigenfunctions and then obtain the general real solution. Describe the shapes of typical trajectories.

$$A = \begin{bmatrix} 3 & 1 \\ -2 & 1 \end{bmatrix}$$

Solution:

14. Construct the general solution of $\mathbf{x}' = A\mathbf{x}$ involving complex eigenfunctions and then obtain the general real solution. Describe the shapes of typical trajectories.

$$A = \begin{bmatrix} -2 & 1 \\ -8 & 2 \end{bmatrix}$$

Solution: