

# Differential Equations – Homework 31

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Professor:

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## Homework 31

**Directions: Do the following book problems**

Section 6.1 Problems 1-5 (ALL), 15, 17, 20, 23, 24.

## Other Notes:

1. Problems 15, 17, 20 are asking you to first decide they type of critical point using the eigenvalues for the system and then to graph the phase plane to see that you get the same result.
2. Problems 23, 24 are asking you to plot the phase plane and visually decide what kind of fixed points you have.
3. You can take screen shots of the phase planes that you graph and insert them all into a single document to be printed and handed in with your homework. Make sure to label your graphs and explain what you are seeing there, even if you are just writing on the printed graphs in pencil.