

Lectures 17, Tu., Oct. 17

Reading homework: Chapter 5

Phase plane method

We covered the drug delivery application part of section 4.11 and problem 25 (a). We also covered section 5.8. We took the following example from page 128 of the book of Waltman (A Second Course in Elementary Differential Equations, Dover, 2004, \$11.82 at walmart.com)

$$\begin{cases} x' = y, \\ y' = x - y + x(x - 2y). \end{cases} \quad (0.1)$$

We will cover section 5.9 and some standard and effective methods for global qualitative phase plane analysis.