

MIT (Fall 2002) 18.385

Third Problem Set

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Suggested Readings (textbook): Chapters 6-7.

Suggested Problems (textbook):

Ch. 6: 6.3.10 6.3.11 6.5.8 6.5.13 6.6.3 6.8.7

Ch. 7: 7.1.9 7.2.5 7.2.7 7.2.16

Note: Part b of 6.5.13 is actually wrong. Figure out what actually happens when  $\epsilon < 0$ .

Note: For 6.8.7 you will need index theory, but it will not be enough. Dulac's criterion (for example) will also be needed.

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Problems to hand in for grading (textbook)

Ch. 6: 6.3.13 6.3.16 6.5.7 6.5.19 6.8.9

Ch. 7: 7.2.6

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NOTE: you can use the MatLab<sup>®</sup> scripts:

PHPLdemoA, PHPLdemoB, PHPLplot or PHPLplot\_v2  
with the problems requiring computer plotting.

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