

Week 7

Monday February 28: *Class 17:*

Solving Nonhomogeneous DEs with Constant Coefficients. We will investigate techniques for finding solutions of solving nonhomogeneous DEs with constant coefficients: *the method of undetermined coefficients.*

Reading:

Zill, (Section 4.4 and 4.5)

Homework Set # 7: (*due Friday March 4*)

Zill, Section 4.4: 2*, 9*, 30*, 37* *EXTRA CREDIT 45*

Zill, Section 4.5: 10*,13*,20*,33*,44* *EXTRA CREDIT 72*

HW Set #6 Due

Wednesday March 2 *Class 18:*

Cauchy-Euler Equations and Some Nonlinear DEs. We will conclude our investigation of n^{th} order differential equations by looking at Cauchy-Euler equations and some techniques for some nonlinear DEs.

Reading:

Zill, (Section 4.7 and 4.9)

Homework Set #7: (*due Friday March 4*)

Section 4.7: 15*, 16*,23*,34*,37* *EXTRA CREDIT 39, 41*

Section 4.9: 1*,16* *EXTRA CREDIT 17*

Friday March 4 *Class 19:*

Advanced Theory of Linear Systems of DEs. We will commence our thorough investigation of linear systems of DEs by summarizing some general theory on the subject.

Reading:

Zill, (Section 8.1 and 8.2)

Homework Set # 8: (*due Friday March 11*)

Zill, Section 8.1: 4*, 5*, 11*, 18* *EXTRA CREDIT 25*

Quiz #6

BONUS Quiz #4 online