

Topics List for Final 285309

Note Title

5/8/2009

Legal disclaimer: This list is not necessarily complete nor exhaustive!

• First order equations

- Integrals, Slope fields & solution curves
- Separable equations
- Linear 1st order equations
- Population models, equilibrium and stability

• Linear equations of higher order

- general solutions
- homog. equ. with constant coeff.
- mechanical vibrations
- non-homog. equations
 - undetermined coefficients (the clever guessing method)
 - forced oscillations & resonance

(no Wronskians!)

• Fourier series methods

- periodic functions and general Fourier series and convergence of Fourier series
- Fourier sine and cosine series (odd and even fcts)
- Applications of Fourier series.