

MAT303: Calc IV with applications

Lecture 9 - March 8 2021

- About the midterm, and the grading criteria
- Euler's method (Ch 2.4)
- Second order linear differential equations (Ch 3.1)
 - Where they arise
 - Homogeneous equations
 - Linear independence
 - Principle of superposition

Ch3: Second order linear differential equations

Today:

- Euler's method for numerically solving DEs
- Second order linear DEs
 - What are they
 - The constant coefficient case
 - Sub in $y = e^{rt}$ to find basis solutions
 - Combine basis solutions to get general solutions
 - Principle of superposition

Next time: continue Ch 3.1,
general second order linear DE

