

Review for Exam 4

MAT 229, Spring 2021

Week 14

Exam rules

- The fourth exam is scheduled for this weekend. It consists of one part, a pen and paper part taken under Lockdown Browser.
 - You can have one page of notes (front and back) and a scientific calculator but no other notes, books, Mathematica, or other devices are allowed.
 - You can take the exam any time between Friday, April 16, and Sunday, April 18, 8:00 ET.
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Format

- Questions will be similar to daily homework questions and weekly assignment questions.
 - You must show your work. For example, if you need to evaluate a definite integral, you must derive the antiderivative and express how you evaluate it.
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Topics

- Absolute convergence test
 - Ratio test and root test
 - Absolute convergence versus conditional convergence versus divergence
- Power series and functions as power series
 - Radius of convergence
 - Interval of convergence
 - Power series built from geometric series
 - Derivatives and integrals of power series
- Taylor series, Taylor polynomials, and Taylor remainder
 - Taylor series for e^x , $\sin(x)$, $\cos(x)$