

MA 241 REVIEW SHEET FOR TEST 4

NOTE: YOU WILL BE EXPECTED TO NAME EACH TEST YOU USE

- **4.1 Sequences**
 - Examples p. 20 # 1,3,5,7,11,12,13
- **4.2 Infinite Series**
 - Be able to determine if a given series is convergent
 - Know when a geometric series is convergent and what it converges to
 - Know about the Harmonic Series
 - Know the Test for Divergence
 - Examples p. 32 #1,3,5, 7,9,12,13,14
 - [Sequences and Series Worksheet](#)
- **4.3 Convergence Tests**
 - Know when the Integral test, Comparison Test, Limit Comparison test can be applied.
 - Know when a p-series converges and when it diverges
 - Examples: p. 47 #1,2,3,5,9,10,11
 - [Comparison Test Worksheet](#)
 - [Limit Comparison Test Worksheet](#)
 - [Integral Test Worksheet](#)
- **4.4 Alternating Series Test**
 - Know the Alternating Series Test
 - Know the Alternating Series Estimation Theorem p. 51
 - Examples: p. 53 # 1,3,4,13
- **4.5 Absolute Convergence and the Ratio Test**
 - Know the Ratio test
 - Understand when a series converges, conditionally converges, absolutely converges, diverges
 - p. 60 # 1,3,9,11
- **4.6 Power Series**
 - Be able to find the radius and interval of convergence for a given Power Series & be able to justify your work
 - Examples: p. 67 # 5,6,7,9
 - [Power Series](#)
- **4.7 Functions as Power Series**
 - Understand how to use the Geometric series to represent a Power series
 - Examples: p. 76 # 1,3,4,7,11,13