MAT 1575 Calculus II Halleck Fall 2018 Study Questions for Exam III

A complete set of attempts (done in pencil) and corrections (done in ink) carefully put together and organized (be sure to put your name, session day, date and topic on each sheet) earns you 10% bonus on your next midterm exam provided that your attendance is good**.** *Please be sure to turn this in at the* ***beginning*** *of the Exam****.***

Quiz 1 **Sequences:** Describe monotonicity, boundedness and convergence

1. an = 1+(-1)n
2. bn = 2n
3. cn =
4. an = ; a1 = It can be shown that an is increasing and that 1 ≤ an ≤ 3

Quiz 2 **Infinite Series:**

(a) Find a formula for Sn, the nth partial sum of the series.

(b) Determine whether the series converges or diverges.

(c) If it converges, state what it converges to.

1. 2. 13 + 23 + 33 + 43 + … 3. 4. 5.

Quiz 3 **Integral and Comparison Tests**

1. use the Integral Test to determine the convergence of the given series:
2. b. c. d.
3. use the Limit Comparison Test to determine the convergence of the given series
4. b. c. (Hint: for small x,

Quiz 4 **Ratio and Root Tests:**

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Quiz 5 **Alternating Series & Absolute Converge**

