Math 220
Week 5
Assignments

Monday, September 25

Reaview posted notes from Friday.

Problem Set 13

3.7: 19, 24

3.8: 11, 17

5.0: For the problems below, justify your answers using any necessary axioms from the notes or theorems from class.

- Compute $\sum_{n=2}^{\infty} \left(\frac{2}{5}\right)^n$.
- Compute $\sum_{n=1}^{\infty} \frac{1}{n^2+2n}$. (Hint: partial fractions)

Wednesday, September 27

First Exam

Friday, September 29

Read posted notes.

Problem Set 14

3.8: 18, 19

5.0: For the problems below, justify your answers using any necessary axioms from the notes or theorems from class.

- Compute $\sum_{n=1}^{\infty} \frac{(-2)^n}{5^{n+1}}$.
- Determine whether or not the series $\sum_{n=1}^{\infty} \frac{1}{1+2^n}$ converges.
- Determine whether or not the series $\sum_{n=0}^{\infty} \frac{1}{n!}$ converges.
- For which values of x does the series $\sum_{n=1}^{\infty} \frac{x^n}{n^2}$ converge? What is the radius of convergence?
- For which values of x does the series $\sum_{n=1}^{\infty} \frac{x^n}{n!}$ converge? What is the radius of convergence?
