Monday, October 2

Read posted notes.

Problem Set 15

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

- Determine whether or not the series $\sum_{n=1}^{\infty} \frac{1}{n^3}$ converges.

- Determine whether or not the series $\sum_{n=1}^{\infty} \frac{2^n}{3^n-1}$ converges.

- Determine whether or not the series $\sum_{n=1}^{\infty} \frac{n}{2+n^3}$ converges.

- Determine whether or not the series $\sum_{n=1}^{\infty} \frac{n!}{n^n}$ converges.

- For which values of x does the series $\sum_{n=1}^{\infty} \frac{n(x+2)^n}{3^{n+1}}$ converge?

5.1: 2, 4, 9

Wednesday, October 4

Review posted notes from Monday.

Problem Set 16

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

- Determine whether or not the series $\sum_{n=1}^{\infty} \frac{n-1}{n+1}$ converges.

- For which values of x does the series $\sum_{n=1}^{\infty} \frac{2^n}{x^{2n}}$ converge?

5.1: 7, 13, 22
5.2: 2ab, 15, 23

Friday, October 6

Read posted notes.

Problem Set 17

5.1: 16, 24, 26
5.2: 6ab, 7ab, 16, 24