Homework Set 8

DUE: MARCH 25, 2019 (AT THE BEGINNING OF CLASS)

To be handed in

Please write your solution to Problem 1 on a single sheet of paper!

1. Decide whether each of the following series converges or diverges.

   a) $\displaystyle\sum_{n=1}^{\infty} \frac{5}{2^n}$

   b) $\displaystyle\sum_{n=1}^{\infty} \frac{n(n+1)}{(n+2)(n+5)}$

   c) $\displaystyle\sum_{n=1}^{\infty} \frac{-1}{n^3}$

   d) $\displaystyle\sum_{n=1}^{\infty} \left(\frac{\pi}{2}\right)^n$

   e) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{1+n^2}$

2. Textbook (5th edition) Section 9.2, Exercises 9-12, 25-30, 112, 113, 115

3. Textbook (5th edition) Section 9.3, Exercises 1-10