

Due: Wednesday, September 19

1. Exercise 2.4.J in the text.
2. Exercise 2.5.I in the text.
3. Given two sequences of real numbers (x_n) and (y_n) , prove that

$$\limsup(x_n + y_n) \leq \limsup x_n + \limsup y_n.$$

Give an example where all three limsup's are finite and the inequality is strict.

4. Read Example 2.6.8 and then do Exercise 2.6.F in the text.